James H. Elder, Ph.D., P.Eng.

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Year of Birth	1964	**Email**	jelder@yorku.ca
Citizenship	Canadian	**WWW**	www.yorku.ca/jelder

Education

Ph. D. 1996

Institution	McGill University, Department of Electrical Engineering
Thesis Title	The visual computation of bounding contours

M. Eng, 1992

Institution	McGill University, Department of Electrical Engineering
Thesis Title	Contour closure and the perception of shape

B. A. Sc. 1987

Institution	University of British Columbia, Department of Electrical Engineering (Computer Engineering Option)

Employment

2012-	Professor,	Department of Electrical Engineering & Computer Science Department of Psychology, York University
2006-2012	Associate Professor,	Department of Computer Science and Engineering & Department of Psychology, York University
2001-2006	Associate Professor,	Department of Psychology, York University
1996-2001	Assistant Professor,	Department of Psychology, York University
1995-1996	Senior Research Associate, Computer Science Division, NEC Research Institute, Princeton, NJ	
1989-1995	Graduate Student, McGill University, Centre for Intelligent Machines, Department of Electrical Engineering	
1987-1989	Member of Scientific Staff, Bell-Northern Research, Ottawa, Ontario	

Affiliations   Licensed Professional Engineer, Professional Engineers Ontario

Lassonde School of Engineering, York University

Member, Graduate Programme in Computer Science & Engineering, York University

Member, Graduate Programme in Psychology, York University

Associate Member, Graduate Programme in Biology, York University

Faculty Member, Centre for Vision Research, York University

Honours & Awards

2009	Professeur Invité, Université de Paris Dauphine & Fondation Sciences Mathématiques de Paris
2008	Poster Award, Gordon Conference on Sensory Coding and the Natural Environment
2000-2010, 2012-2013	York University Yearly Merit Awards
2003	Premier's Research Excellence Award, Ontario Ministry of Enterprise, Opportunity and Innovation
2001	Young Investigator Award, Canadian Image Processing and Pattern Recognition Society
1998	York University Release-Time Teaching Fellowship and Development Grant, for *Integrated disciplinary and computer training in an active learning environment*
1995	Postdoctoral Fellowship, Natural Sciences and Engineering Research Council (declined)
1995	Long-Term Postdoctoral Fellowship, International Human Frontier Science Program (declined)
1995	Best Paper Award, for the paper "Scale space surfaces and blur estimation," Vision Interface, Québec City, Québec
1994-1995	Postgraduate Scholarship, Fonds pour la Formation de Chercheurs et l'Aide à la Recherche (Québec)
1989-1994	Postgraduate Scholarship, Natural Sciences and Engineering Research Council
1989-1991	Postgraduate Scholarship, Bell-Northern Research

PROFESSIONAL CONTRIBUTIONS

Publication Summary

Number of citations (Google Scholar):   3,551
H-Index (Google Scholar):   24
Peer-Reviewed Journal Articles: 28
Peer-Reviewed Conference Papers: 29
Book Chapters: 4
Patents: 2

List of Publications

Journal Articles (Refereed)

Drewes, J., Goren, G., Zhu, W. & Elder, J.H. (2016). Recurrent processing in the formation of shape percepts. *J. Neuroscience* vol. 36, no. 1, 185-192. (Accepted for publication Nov 16, 2015).

Adams, W.J. & Elder, J.H. (2014). Effects of specular highlights on perceived surface convexity. *PLOS Computational Biology 10(5): e1003576.* doi:10.1371/journal.pcbi.1003576. (Published May 8, 2014).

T. McLeod, C. Samson, M. Labrie, K. Shehata, J. Mah, P. Lai, L. Wang, and J.H. Elder. (2013) Using video data acquired from an unmanned aerial vehicle to measure fracture orientation in an open pit mine. *Geomatica* vol. 67, no. 3, 173-180.

Elder, J.H., Oleskiw, T.D., Yakubovich, A. & Peyré, G. (2013). On growth and formlets: Sparse multi-scale coding of planar shape. *Image and Vision Computing* vol. 31, 1-13. (**Editor's Choice Paper**)

Wagemans, J.H., Elder, J.H., Kubovy, M., Palmer, S., Peterson, M., Singh, M. & von der Heydt, R. (2012). A century of Gestalt psychology in visual perception: I. Perceptual grouping and figure-ground organization. *Psychological Bulletin*, vol. 138, no. 6, 1172–1217.

Fazl-Esri, E., Elder, J.H. & Tsotsos, J.K. (2012). Hierarchical classifiers for robust topological robot localization. *Journal of Intelligent and Robotic Systems*, vol. 68, no. 2, 147-163.

Dornaika, F. & Elder, J.H. (2012) Image registration for foveated panoramic sensing. *ACM Transactions on Multimedia Computing, Communications and Applications*, vol. 8, no. 2.

Morgenstern, Y. & Elder, J.H. (2012). Local visual energy mechanisms revealed by detection of global patterns. *Journal of Neuroscience,* vol. 32, no. 11, 3679-3696.

Li, P., Fu, Y., Mohammed, U. & Elder, J.H. & Prince, S.J.D. (2012). Probabilistic models for inference about identity. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 34, no 1. 144-157.

Or, C.F. & Elder, J.H. (2011).   Oriented texture detection: ideal observer modelling and classification image analysis, *Journal of Vision*, vol. 11 no. 8 art. 16, 1-19.

Elder, J. H. & Velisavljević, L. (2009). Cue dynamics underlying rapid detection of animals in natural scenes. *Journal of Vision*, vol. 9 no. 7 art. 7, 1-20.

Velisavljević, L. & Elder, J. H. (2008). Visual short-term memory of local information in briefly viewed natural scenes: Configural and non-configural factors. *Journal of Vision*, vol. 8 no. 16 art. 8, 1-17.

Velisavljevic, L. & Elder, J.H. (2008) Visual short-term memory for natural scenes: Effects of eccentricity, *Journal of Vision*, vol. 8 no. 4, art. 28, 1-17.

Prince, S.J.D. & Elder, J.H. (2008) Tied factor analysis for face recognition across large pose differences. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 30, no. 6, 970-984.

Elder, J.H., Prince, S.J.D., Hou, Y., Sizintsev, M. & Olevskiy, E. (2007) Pre-attentive and attentive detection of humans in wide-field scenes, *International Journal of Computer Vision*, vol. 72, no. 1, 47-66.

Velisavljevic, L. & Elder, J.H. (2006) Texture properties affecting the accuracy of surface attitude judgements, *Vision Research*, vol. 46, no. 14, 2166-2191.

Elder, J.H., Trithart, S., Pintilie, G. & MacLean, D. (2004) Rapid processing of cast and attached shadows, *Perception*, vol. 33, 1319-1338.

Elder, J.H. & Sachs, A.J. (2004) Psychophysical receptive fields of edge detection mechanisms, *Vision Research,* vol. 44, no. 8, 795-813.

Elder, J.H., Krupnik, A. & Johnston, L.A. (2003) Contour grouping with prior models, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 25, no. 6, 661-674.

Elder, J.H., & Goldberg, R. M. (2002). Ecological statistics of Gestalt laws for the perceptual organization of contours. *Journal of Vision*, 2(4), 324-353, http://journalofvision.org/2/4/5/, DOI 10.1167/2.4.5.

Reeves, R., Elder, J.H. & Laidler, G. (2001). Accuracy of the Canadian Digital Terrain Data in the Gatineau region of Québec. *Geomatica,* vol. 55, no. 1, 57-64.

Elder, J.H. & Goldberg, R.M. (2001). Image editing in the contour domain. *IEEE Transactions on Pattern Analysis and Machine Intelligence,* vol. 23, no. 3, 291-296.

Wilcox, L.M., Elder, J.H. & Hess, R.F. (2000). The effects of blur and size on monocular and stereoscopic localization. *Vision Research*, vol. 40, no. 26, 3575-3584.

Elder, J.H. (1999) Are edges incomplete*? International Journal of Computer Vision,* vol. 34, no. 2/3, 97-122.

Elder, J.H. & Zucker, S.W. (1998). Local scale control for edge detection and blur estimation. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 20, no. 7, 699-716.

Elder, J.H. & Zucker, S.W. (1998). Evidence for boundary-specific grouping. *Vision Research,* vol. 38, no. 1, 143-152.

Elder, J.H. & Zucker, S.W. (1994). A measure of closure. *Vision Research,* vol. 34, no. 24, 3361-3370.

Elder, J.H. & Zucker, S.W. (1993). The effect of contour closure on the rapid discrimination of two-dimensional shapes. *Vision Research,* vol. 33, no. 7, 981-991.

Book Chapters

Elder, J.H. (2015). Bridging the dimensional gap: Perceptual organization of contour into two-dimensional shape. In J. Wagemans, ed., *Oxford Handbook of Perceptual Organization*, Oxford University Press, Oxford UK.

Elder, J.H. (2014). Edge detection. In K. Ikeuchi, ed., *Computer vision: A Reference Guide*, Springer US.

Elder, J.H. (2013). Perceptual organization of shape. In S. Dickinson & Z. Pizlo, ed., *Shape Perception in Human and Computer Vision: An Interdisciplinary Perspective*, Springer.

Elder, J.H., Dornaika, F., Hou, Y. & Goldstein, R. (2005) Attentive wide-field sensing for visual telepresence and surveillance. In L. Itti, G. Rees & J. Tsotsos, eds, *Neurobiology of Attention*, Academic Press/Elsevier, San Diego, 624-632.

Invited Publications

Elder, J.H., Victor, J. & Zucker S.W. (2016). Editorial: Understanding the statistics of the natural environment and their implications for vision. *Vision Research*, 120, 1-4.

Gepshtein, S., Elder, J. H., & Maloney, L. T. (2008). Editorial: Perceptual organization and neural computation. *Journal of Vision*, 8(7):i, 1-4, http://journalofvision.org/8/7/i/, doi:10.1167/8.7.i.

Gold, J.M., Shiffrin, R., & Elder, J.H. (2006). Editorial: Finding visual features: Using stochastic stimuli to discover internal representations. *Journal of Vision*, 6(4), ii, http://journalofvision.org/6/4/ii/, doi:10.1167/6.4.ii.

Papers in Published Conference Proceedings (Refereed)

Elasal, N. & Elder, J.H. (2016) Estimating camera pose from motion without tracking. Submitted to the *European Conference on Computer Vision*.

Qian, Y., Almazen, E. & Elder, J.H. (2016) Evaluating features and classifiers for road weather condition analysis. Submitted to the *IEEE Conference on Image Processing*.

Adams, W.J., Muryy, A.A., Graf, E.W., Lugtigheid, A.J. and Elder, J.H. (2015) The Southampton York natural scenes (SYNS) dataset. In, *CVMP '15 Proceedings of the 12th European Conference on Visual Media Production.* New York, ACM.

Corral-Soto, E. and Elder, J.H. (2014) Automatic single-view calibration and rectification from parallel planar curves. In D. Fleet, T. Pajdla, B. Schiele, and T. Tuytelaars, editors, *ECCV (IV)*, volume 8692 of Lecture Notes in Computer Science, Springer, Berlin, 813–827.

Yakubovich, A. & Elder, J.H. (2014) Building better formlet codes for planar shape, In *Computer and Robot Vision (CRV), 2014 Canadian Conference on,* 84–91, May 2014.

Movahedi, V. & Elder, J.H. (2013) Combining local and global cues for closed contour extraction. In T. Burghardt, D. Damen, W. MAyol-Cuevas, and M. Mirmehdi, editors, *Proceedings of the British Machine Vision Conference*, BMVA Press, 128.1-128.11

Tal, R. & Elder, J.H. (2012) An accurate method for line detection and Manhattan frame estimation, in J.I. Park and J. Kim, eds, *Proc. ACCV Workshops, Part II, LNCS 7729*, Springer-Verlag, Berlin, 580-593.

Corral-Soto, E.R., Tal, R., Wang, L., Persad, R., Chao, L. Solomon, C., Hou, Y., Sohn G., Elder, J.H. (2012) 3DTown: The automatic urban awareness project, *Proc. Canadian Conference on Computer and Robot Vision*, IEEE Computer Society, Los Alamitos, CA, 433-440.

Movahedi, V. & Elder, J.H. (2010) Design and perceptual validation of performance measures for salient object segmentation, *Proc. CVPR Workshop on Perceptual Organization in Computer Vision (WPOCV)*, IEEE Computer Society, Los Alamitos, CA, 49-56.

Prince, S.J.D. & Elder, J.H. (2010) Bayesian identity clustering, *Proc. Canadian Conference on Computer and Robot Vision*, IEEE Computer Society, Los Alamitos, CA, 32-39.

Oleskiw, T.D., Elder, J.H. & Peyré, G. (2010) On growth and formlets: Sparse multiscale coding of planar shape, *Proc. IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, IEEE Computer Society, Los Alamitos, CA, 459-466.

Fazl-Ersi, E.; Elder, J.H.; Tsotsos, J.K. (2009). Hierarchical appearance-based classifiers for qualitative spatial localization. *Proc. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 3987-3992.

Denis, P., Elder, J.H., Estrada, F. (2008) Efficient edge-based methods for estimating Manhattan frames in urban imagery, *Proc. European Conf. on Computer Vision (ECCV) II,* 5303, 197-210.

Prince, S.J.D. & Elder, J.H. (2007) Probabilistic linear discriminant analysis for inferences about identity, *Proc. IEEE International Conference on Computer Vision (ICCV)*.

Estrada, F.J. & Elder, J.H. (2006) Multi-scale contour extraction based on natural image statistics, *Proc. IEEE Workshop on Perceptual Organization in Computer Vision (WPOCV)*, New York, NY. doi: 10.1109/CVPRW.2006.134

Prince, S.J.D. & Elder, J.H. (2006) Tied factor analysis for face recognition across large pose changes, *Proc. British Machine Vision Conference (BMVC)*, vol. 3, 889-898.

Prince, S.J.D.; Elder, J.H; Hou, Y.; Sizinstev, M.; Olevskiy, E.(2006) Towards face recognition at a distance, *Crime and Security. The Institution of Engineering and Technology Conference,* 570 – 575.

Prince, S.J.D., Elder, J.H., Hou, Y., Sizintsev, M. & Olevskiy, E. (2005) Statistical cue integration for foveated wide-field surveillance, *Proc. IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, IEEE Computer Society, Los Alamitos, CA, 603-610.

Prince, S.J.D. & Elder, J.H. (2005) Creating invariance to "nuisance parameters" in face recognition, *Proc. IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, IEEE Computer Society, Los Alamitos, CA 446-453.

Prince, S.J.D., Elder, J.H., Hou, Y. & Sizintsev, M. (2005) Preattentive face detection for foveated wide-field surveillance, *Proc. IEEE Workshop on Applications in Computer Vision (WACV)*, IEEE Computer Society, Los Alamitos, CA, 739-746.

Johnston, L.A. & Elder, J.H. (2004) Efficient computation of closed contours using modified Baum-Welch updating. *Proc. IEEE Workshop on Perceptual Organization in Computer Vision (POCV)*, Washington, DC. doi: 10.1109/CVPR.2004.56.

Elder, J.H. (2002) Ecological statistics of contour grouping. *Proc.* 2nd International Workshop on Biologically Motivated Computer Vision, Tubingen, Germany, in *Lecture Notes in Computer Science,* vol. 2525, H.H. Bulthoff et al, eds, Springer-Verlag, Berlin, 230-238.

Dornaika, F. & Elder, J.H. (2002). Image registration for foveated omnidirectional sensing. *Proc. 7th European Conference on Computer Vision* (ECCV), Copenhagen, in *Lecture Notes in Computer Science*, vol. 2353, Springer-Verlag, Berlin, 606-620.

Elder, J.H. & Krupnik, A. (2001). Contour grouping with strong prior models. *Proc. IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR), IEEE Comput. Soc, Los Alamitos, CA,* vol. 2, 414-21.

Elder, J.H. & Goldberg, R.M. (1998) Image editing in the contour domain. *Proc. IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR), Santa Barbara, CA, 374-381.*

Jenkin, M., Elder, J.H. & Pintilie, G. (1998) Loosely-coupled telepresence through the panoramic image server. *Proc. Vision Interface, 249-254, Vancouver, Canada.*

Elder, J.H. & Zucker, S.W. (1996). Scale space localization, blur and contour-based image coding. *Proc. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), San Francisco,* 27-34.

Elder, J.H. & Zucker, S.W. (1996). Computing contour closure. *Proc. 4th European Conference on Computer Vision (ECCV), vol.1, Cambridge, UK,* 399-412.

Elder, J.H. & Zucker, S.W. (1996). Local scale control for edge detection and blur estimation. *Proc. 4th European Conference on Computer Vision (ECCV), vol. 2, Cambridge, UK,* 57-69.

Elder, J.H., Zucker, S.W. (1995). Shadows, defocus and reliable estimation. *Proc. 6th International Conference on the Computational Analysis of Images and Patterns, Prague,* 318-325.

Elder, J.H. & Zucker, S.W. (1995). Scale space surfaces and blur estimation. *Proc. Vision Interface, Québec,* 140-147. **(Best Paper Award).**

Papers in Published Conference Proceedings (Non-Refereed)

Lee, T., Kim, T., Sohn, G & Elder, J.H. (2010). Relative orientation estimation of video streams from a single pan-tilt-zoom camera. *Proceedings, Canadian Geomatics Conference and Symposium of Commission I, ISPRS Convergence in Geomatics – Shaping Canada's Competitive Landscape.* Available from http://www.isprs.org/proceedings/XXXVIII/part1/.

Krupnik, A. and Elder, J.H. (2002). Extraction of lakes from satellite imagery. *Proceedings, Joint International Symposium on Geospatial Theory, Processing and Applications*, Ottawa, Canada.

Abstracts in Published Conference Proceedings (Refereed)

Wilder, J., Frund, I. & Elder, J.H. (2015) Frequency tuning of shape discrimination revealed by classification image analysis, *European Conference on Visual Perception*.

Lugtigheid, A.J., Adams, W., Elder, J.H., Graf, E.W. & Muryy, A.A. (2015). Biases in perceived slant and tilt of real surfaces, *Vision Sciences Society Conference*.

Graf, E.W., Adams, W. & Elder, J.H (2015). The effect of the bounding contour on the perception of surface shape, *Vision Sciences Society Conference*.

Muryy, A.A., Adams, W., Elder, J.H., Graf, E.W., & Lugtigheid, A.J. (2015). Estimating 3D surface properties of natural scenes, *Vision Sciences Society Conference*.

Adams, W., Elder, J.H., Graf, E.W., Muryy, A.A. & Lugtigheid, A.J. (2015). Perception of 3D structure and natural scene statistics: The Southampton-York Natural Scenes (SYNS) dataset, *Vision Sciences Society Conference*.

Goren, G. & Elder, J.H. (2015). Visual distortions induced by simple and complex shapes, *Vision Sciences Society Conference*.

Frund, I. & Elder, J.H. (2015). Tuning of the visual system to the curvature of natural shapes, *Computational and Systems Neuroscience (Cosyne)*.

Frund, I. & Elder, J.H. (2015). Psychophysical evaluation of planar shape representations for object recognition, *Vision Sciences Society Conference*.

Muryy, A., Lugtigheid A., Adams, W., Elder, J.H. & Graf, E. (2014) SYNS dataset of natural scene measurements, *Applied Vision Association Meeting*, London, UK.

Lugtigheid A., Adams, W., Elder, J.H., Graf, E. & Muryy, A. (2014) Interactions between slant and tilt perception, *Applied Vision Association Meeting*, London, UK.

Goren, G. & Elder, J.H. (2014). Visual distortions induced by simple and complex shapes, *Canadian Society for Brain, Behaviour and Cognitive Science Annual Meeting, Canadian Journal of Experimental Psychology, In Press.* **(Hebb student poster award runner-up).**

Frund, I. & Elder, J.H. (2014). Closure and global shape contributions to contour grouping, *Vision Sciences Society Conference*.

Goren, G. & Elder, J.H. (2013). Shape-induced distortions of spatial judgements, *Journal of Vision, 13(9):64* **(Best student poster award).**

Fründ I, Elder J. H. (2013), The contribution of local contour features to global shape processing, Perception 42 ECVP Abstract Supplement, 228.

Frund, I. & Elder, J.H. (2013). Statistical coding of natural closed contours, *Journal of Vision, 13(9):119*.

Drewes, J., Goren, G. & Elder, J.H. (2012). Psychophysical Indications of Recurrent Processing in shape perception, *Perception 41 ECVP Abstract Supplement, 219*.

Corral-Soto, E.R., Tal, R., Wang L., Persad R., Chao, L., Solomon, C., Hou, Y., Sohn, G. & Elder, J.H. (2012). 3DTown: The automatic urban awareness project. *Virtual Reality Short Papers and Posters (VRW),* IEEE, 87-88.

Drewes, J., Goren, G. & Elder, J.H. (2012). A temporal window of facilitation in the formation of shape percepts, *Journal of Vision*, 12(9): 314.

Adams, W.J., Graf, E.W., Elder, J.H. & Josephs, J.A.E. (2012). Inferring 3D surface shape from 2D contour curvature. *Journal of Vision*, 12(9): 226.

Elder, J.H. (2011). Influence of object pose on contour grouping, *Perception 40 ECVP Abstract Supplement, 59.*

Elder, J.H. Oleskiw, T.D., Graf, E.W. & Adams, W.J (2010). Contour grouping and natural shapes: beyond local cues [Abstract], *Journal of Vision*, 10(7):1171, http://journalofvision.org/10/7/1171/, doi: 10.1167/10.7.1171.

Elder, J. H., & Velisavljevic, L. (2009). Cue dynamics underlying rapid detection of animals in natural scenes [Abstract], *Journal of Vision*, 9(8):787, http://journalofvision.org/9/8/787/, doi:10.1167/9.8.787.

Mander, C., Elder, J. H., Keillor, J., & Hou, Y. (2009). Co-determination of attentional allocation by endogenous and exogenous factors [Abstract]. *Journal of Vision*, 9(8):135, http://journalofvision.org/9/8/135/, doi:10.1167/9.8.135.

Elder, J. H., Balaban, D. Y., Kamyab, A., Wilcox, L.M., & Hou, Y. (2008). Selectivity for faces as exogenous attentional cues [Abstract]. *Journal of Vision*, 8(6):685, 685a, http://journalofvision.org/8/6/685/, doi:10.1167/8.6.685.

Elder, J. H., & Morgenstern, Y. (2007). Nonlinear pooling mechanisms underlying edge detection *Perception*, vol. 36 (supplement), 39.

Or, C. C.-F., & Elder, J. H. (2007). Classification image analysis of oriented texture detection [Abstract]. *Journal of Vision*, 7(9):359, 359a, http://journalofvision.org/7/9/359/, doi:10.1167/7.9.359.

Elder, J. H., & Morgenstern, Y. (2006). Power spectrum classification image analysis reveals localized mechanisms underlying nonlinear detection of narrowband stimuli [Abstract]. *Journal of Vision*, 6(6), 117a, http://journalofvision.org/6/6/117/, doi:10.1167/6.6.117.

Morgenstern, Y., & Elder, J.H. (2005). Noise does not shrink the summation region for grating detection [Abstract]. *Journal of Vision*, 5(8), 477a, http://journalofvision.org/5/8/477/, doi:10.1167/5.8.477.

Clarke, A. & Elder, J.H. (2004). Principal component analysis of good continuation cues. *Perception, vol. 33 (supplement),* 46.

Morgenstern, Y., Elder, J. H., & Hou, Y. (2004). Contrast dependence of spatial summation revealed by classification image analysis [Abstract]. *Journal of Vision*, 4(8), 539a, http://journalofvision.org/4/8/539/, doi:10.1167/4.8.539.

Elder, J. H. (2003). Contour grouping: Ecological statistics, generative models and ideal observers, *Invited Talk, Fall Vision Meeting: Symposium on Segmentation and Grouping*, Tucson, AZ. *Journal of Vision*, *3*(12), 10a, http://journalofvision.org/3/12/10/, doi:10.1167/3.12.10.

Elder, J. H., Morgenstern, Y., & Tabone, R. (2003). The efficiency of contour grouping [Abstract]. *Journal of Vision*, *3*(9), 118a, http://journalofvision.org/3/9/118/, doi:10.1167/3.9.118.

Velisavljevic, L., & Elder, J. H. (2003). Eccentricity effects in the rapid visual encoding of natural images [Abstract]. *Journal of Vision*, *3*(9), 647a, http://journalofvision.org/3/9/647/, doi:10.1167/3.9.647.

Elder, J.H., Morgenstern, Y. & Tabone, R. (2002) A New ideal observer formulation for perceptual organization, *Perception, vol. 31 (supplement),* 109.

Amati, J., & Elder, J. H. (2002). Slant capture in the perception of multiple textured transparent surfaces. *Journal of Vision*, 2(7), 97a, http://journalofvision.org/2/7/97/, DOI 10.1167/2.7.97.

Velisavljevic, L., & Elder, J. H. (2002). What do we see in a glance? [Abstract]. *Journal of Vision*, 2(7), 493a, http://journalofvision.org/2/7/493/, DOI 10.1167/2.7.493.

Amati, J. & Elder, J.H. (2001). Factors affecting the discrimination and perceived attitude of multiple transparent surfaces. *Journal of Vision*, 1(3), 430a, http://journalofvision.org/1/3/430, DOI 10.1167/1.3.430.

Sachs, A. & Elder, J.H. (2000) Estimating the psychophysical receptive fields of edge detection mechanisms, *Perception, vol. 29 (supplement),* 122.

Elder, J.H., Wilcox, L.M. (2000). Computational modelling of stereoacuity for binocularly uncorrelated (2nd order) stimuli, *Investigative Ophthalmology and Visual Science, vol. 41, no. 4,* S736.

Velisavljevic, L. & Elder, J.H. (2000). What is the optimal texture for perceiving surface attitude?, *Investigative Ophthalmology and Visual Science, vol. 41, no. 4,* S219.

Reeves, R and Elder, J.H. (2000). Accuracy of Canadian digital terrain data in the Gatineau region of Québec. *GEOMATICS 2000, Montreal, Mar 2000.*

Elder, J.H., Beniaminov, D. & Pintilie, G. (1999). Edge classification in natural images, *Investigative Ophthalmology and Visual Science, vol. 40, no. 4,* S357.

Elder, J.H. & Goldberg, R.M. (1998). Inferential reliability of contour grouping cues in natural images. *Perception, vol. 27 (supplement),* 11.

Elder, J.H., Trithart, S., Pintilie, G. & MacLean, D. (1998). Rapid processing of cast and attached shadows*, Investigative Ophthalmology and Visual Science, vol. 39, no. 4,* S853.

Elder, J.H. (1997). Brightness filling-in of natural images. *Perception, vol 26 (supplement)* 57.

Elder, J.H. & Zucker, S.W. (1996). The visual computation of closed contours. *Investigative Ophthalmology and Visual Science, vol. 37, no. 3,* 805.

Wilcox, L.M., Elder, J.H. & Hess, R.F. (1996). The effect of stimulus blur and size on stereoacuity. *Investigative Ophthalmology and Visual Science, vol. 37, no. 3,* 3127.

Elder, J.H., Zucker, S.W. (1995). Boundaries, textures and the perceptual binding of fragmented figures. *Perception, vol. 24 (supplement),* 119.

Elder, J.H. & Zucker, S.W. (1995). The local character of generalized luminance transitions. *Investigative Ophthalmology and Visual Science, vol. 36, no. 4,* 3855.

Elder, J.H. & Zucker, S.W. (1992). Contour closure and the perception of shape. *Investigative Ophthalmology and Visual Science, vol. 33, no. 4,* 1339.

Elder, J.H. & Zucker, S.W. (1991). The importance of contour closure in visual search. *Investigative Ophthalmology and Visual Science, vol. 32,, no. 4,* 715.

Technical Reports

Elder, J.H., Hou, Y., Parag, T., Mander, C, Corral Soto, E. & Keillor, J. (2009). R&D real-time surveillance contract no. W7711-078119/001/TOR, Call-Up #2, Defence R&D Canada

Elder, J.H., Hou, Y., Magdin, V. & Keillor, J. (2008). R&D real-time surveillance contract no. W7711-078119/001/TOR, Call-Up #1, Defence R&D Canada

Elder, J.H., Hou, Y., Cannons, K., Estrada, F., Markle, B. & Luo, R. (2006) DND TIES contract W7711-4-7924 Call-Up #9: Mathematical consulting in support of assisted target detection for low-light imagery, Year 1 Final Report

Prince, S.J.D. & Elder, J.H. (2005) Three-dimensional face reconstruction using near-infrared light. Technical report commissioned by VisionSphere Technologies.

Elder, J.H. & Velisavljevic, L. (1999). An experimental investigation of the effect of texture scaling properties on the visual judgement of surface attitude. PWGSC contract 03SV.W8477-8-AC38 for the Canadian Department of National Defense.

Elder, J.H. & Zucker, S.W. (1993). The integration of figure fragments into representations of planar shape. *McGill CIM Technical Report 93-2.*

Elder, J.H. (1986). Initial R&D of an innovative device for separating blood samples in the clinical chemistry laboratory. *Andronic Devices Limited, Vancouver.*

Elder, J.H. (1985). A software interface between a DEC PDP-11/23 computer and a neuromatic 2000 electromyograph. *Vancouver General Hospital Biomedical Engineering Department.*

Elder, J.H. (1984). Quantitative radiation detection for an automated system to analyse grain by proton activation. *Tri-University Meson Facility (TRIUMF), Vancouver.*

Conference Presentations

Unpublished Conference Presentations (refereed)

Elder, J.H. & Krupnik, A. (2001). Contour grouping with strong prior models. *IEEE Workshop on Perceptual Organization in Computer Vision, Vancouver, Canada.*

Elder, J.H. & Goldberg, R.M. (1998). The statistics of natural image contours. *IEEE Workshop on Perceptual Organization in Computer Vision, Santa Barbara, CA.*

Elder, J.H. & Zucker, S.W. (1996). The computation of closed bounding contours. *Vision Interface, Toronto.*

Unpublished Conference Presentations (non-refereed)

Elder, J.H. , Frund, I. & Yakubovich. A. (2015). Generative shape trees. *Annual Interdisciplinary Conference*, Jackson Hole, Wyoming.

Frund, I. & Elder, J.H. (2014). Relating the ecological statistics of natural shapes to curvature tuning in macaque area V4, *Computational and Mathematical Models in Vision – MODVIS 2014, St. Petersburg, FL.*

Elder, J.H. (2014). A generative model of local shape. *Annual Interdisciplinary Conference*, Jackson Hole, Wyoming.

Elder, J.H. (2013). Perceptual organization of shape. *Neural Computation and Adaptive Perception CIFAR Meeting*, San Francisco, CA.

Elder, J.H. (2013). Dynamic Carbon Mapping in Urban Environments, *CASCON CIVDDD Workshop on Collaborative Research in Big Data Analytics and Visualization*, Toronto.

Frund, I. & Elder, J.H. (2013). Human selectivity for statistical properties of natural shapes, *Computational and Mathematical Models in Vision – MODVIS 2013, Naples, FL.*

Elder, J.H. (2013). Perceptual organization of shape. *Annual Interdisciplinary Conference*, Jackson Hole, Wyoming.

Corral-Soto, E.R. & Elder, J.H. (2012). Automatic image rectification for motion analysis of highway traffic surveillance video. *Global Geospatial Conference,* Quebec City.

Tal, R. & Elder, J.H. (2012). Towards understanding Of urban scenes: Recovering pose and structure using linear constraints. *Global Geospatial Conference,* Quebec City. (**Student poster award**)

Elder, J.H. (2012). Attention is surprising. *Annual Interdisciplinary Conference*, Breckenridge, Colorado.

Elder, J.H. (2012) On grouping and formlets: The role of shape in perceptual organization, *Computational and Mathematical Models in Vision – MODVIS 2012*, Naples, FL.

Yakubovich, A. & Elder, J.H. (2011) A novel basis of anisotropic deformations for a sparse, multi-scale representation of planar shape, *York University International Conference on Plastic Vision*, Toronto, Canada.

Corral, E. & Elder, J.H. (2011) Probabilistic detection and grouping of highway lane marks, *York University International Conference on Plastic Vision*, Toronto, Canada.

Tal, R. & Elder, J.H. (2010) Line-based approach for three-dimensionalizing urban surveillance networks, *GEOIDE Annual Scientific Conference*, Calgary, Canada.

Corral Soto, E. & Elder, J.H. (2010) Probabilistic detection and grouping of highway lane marks, *GEOIDE Annual Scientific Conference*, Calgary, Canada.

Josephs, J.A.E., Adams, W.J., Graf, E.W. & Elder, J.H. (2009) Anisotropies in the perceived slant of ceiling, ground and wall planes. *York University International Conference on Vision in 3D Environments*, Toronto, Canada.

Tal, R. & Elder, J.H. (2009) Kernel-based Hough method for improved estimation of Manhattan frames in urban imagery, *York University International Conference on Vision in 3D Environments*, Toronto, Canada.

Oleskiw, T. & Elder, J.H. (2009) Multiscale representations of object boundary shape, *York University International Conference on Vision in 3D Environments*, Toronto, Canada.

Corral Soto, E. & Elder, J.H. (2009) Image stabilization: Extending the range capabilities of the KLT algorithm via phase correlation, *York University International Conference on Vision in 3D Environments*, Toronto, Canada.

Movahedi, V. & Elder, J.H. (2009) Performance measure for perceptual grouping algorithms, *York University International Conference on Vision in 3D Environments*, Toronto, Canada.

Tal, R. & Elder, J.H. (2009) Kernel-based Hough method for improved estimation of Manhattan frames in urban imagery, *GEOIDE Annual Scientific Conference*, Vancouver, Canada.

Oleskiw, T. & Elder, J.H. (2009) Multiscale representations of object boundary shape, *GEOIDE Annual Scientific Conference*, Vancouver, Canada. **(2nd place student poster prize)**

Elder, J.H., Prince, S.J.D., David, S.V. & Gallant, J. (2008) A geometric model predicts pattern selectivity of V1 neurons, *Gordon Research Conference on Sensory Coding and the Natural Environment,* Barga, Italy. **(Best poster award)**

Elder, J.H. & Estrada, F. (2008) A Bayesian multi-scale model of perceptual organization, *Annual Interdisciplinary Conference*, Jackson Hole, Wyoming.

Denis P. & Elder J.H. (2008) Efficient edge-based methods for estimating Manhattan frames in urban imagery, *GEOIDE Annual Scientific Conference*, Niagara Falls, ON. **(3rd place poster prize)**

Elder, J.H. (2008) Three-dimensionalizing surveillance networks, *GEOIDE Annual Scientific Conference*, Niagara Falls, ON.

Movahedi V. & Elder, J.H. (2008) Salient object statistics. *18th Annual Canadian Conference on Intelligent Systems*, Windsor, ON.

Elder, J.H., Prince, S.J.D., Hou, Y., David, S.V. & Gallant, J. (2007) A geometric model of V1 neural selectivity, *Annual Interdisciplinary Conference*, Jackson Hole, Wyoming.

Denis, P., Estrada, F., & Elder, J.H. (2007) Automatic estimation of vanishing points for single-view reconstruction from urban surveillance video, *PRECARN Intelligent Systems Conference*, Montreal, QC.

Denis, P., Estrada, F., & Elder, J.H. (2006) Single image 3D scene reconstruction for visual surveillance systems, *PRECARN Intelligent Systems Conference*, Victoria, BC.

Elder, J.H. (2006) Estimating nonlinear mechanisms underlying detection of narrowband stimuli using classification image analysis, *Annual Interdisciplinary Conference*, Jackson Hole, Wyoming.

Elder, J.H. (2005) Testing linear and nonlinear detection models using classification image analysis, *Annual Interdisciplinary Conference*, Jackson Hole, Wyoming.

Elder, J.H. (2003) Intelligent data fusion for aircraft navigation and disaster management, *GEOIDE Annual Meeting, Victoria, Canada.*

Elder, J.H. (2003) Visual intelligence for surveillance and telepresence applications, *IRIS/PRECARN Annual Meeting, Halifax, Canada.*

Velisavjlevic, L. & Elder, J.H. (2003) Eccentricity effects in the rapid visual encoding of natural images, *IRIS/PRECARN Annual Meeting, Halifax, Canada.*

Elder, J.H. (2002) Extraction of features from remote-sensed imagery for a search and rescue database, *GEOIDE Annual Meeting, Toronto, Canada.*

Elder, J.H. (2002) Visual intelligence for surveillance and telepresence applications, *IRIS/PRECARN Annual Meeting, Montreal, Canada.*

Elder, J.H. (2002) Applications of intelligent visual sensing technologies, *Payloads, Packages and Platforms: Organizing Networks for a Canadian Mars Mission Workshop,* Toronto.

Elder, J.H. (2001) Computational and perceptual issues in Enhanced/Synthetic Vision Systems, *Workshop on Enhanced and/or Synthetic Vision Systems,* Toronto.

Elder, J.H. (2001) Extraction of features from remote-sensed imagery, *GEOIDE Annual Meeting, Fredericton, Canada.*

Krupnik, A. & Elder, J.H. (2001) Extraction of lakes from satellite imagery, *GEOIDE Annual Meeting, Fredericton, Canada.*

Reeves, R. & Elder, J.H. (2001) Constructing more accurate terrain models from multiple DEMs and classification data, *GEOIDE Annual Meeting, Fredericton, Canada.*

Elder, J.H. (2001) Attentional methods for virtual reality and telepresence, *PRECARN/IRIS Annual Meeting, Ottawa.*

Amati, J. & Elder, J.H. (2001) Factors affecting the discrimination and perceived attitude of multiple transparent surfaces, *PRECARN/IRIS Annual Meeting, Ottawa*.

Dornaika, F. & Elder, J.H. (2001) Image registration for attentive panoramic sensing, *PRECARN/IRIS Annual Meeting, Ottawa*.

Velisavljevic, L. & Elder, J.H. (2001) The processing of local and global information in natural images, *York Conference 2001: Levels of Perception*.

Elder, J.H. (2000) Textures for helmet mounted synthetic environments. *National Research Council Flight Research Laboratory Head-Mounted Display Research Meeting*.

Velisavljevic, L. & Elder, J.H. (2000) Texture mapping terrain to optimize visual judgments of surface attitude, *GEOIDE Annual Conference, Calgary.*

Reeves, R., Elder, J.H. & Laidler, G. (2000) Towards a synthetic terrain database for search and rescue helicopters, *GEOIDE Annual Conference, Calgary.*

Elder, J.H., Wu, G. & Hou, Y. (2000) Foveated panoramic sensing. *PRECARN/IRIS Annual Meeting, Montreal*.

Elder, J.H., Velisavljevic, L. (1999) What is the optimal texture for perceiving surface attitude? *International Conference on Vision and Attention, York University.*

Elder, J.H. (1999) Perceptual factors in virtual reality and telepresence. *PRECARN-IRIS IX Annual Conference, Toronto.*

Elder, J.H. (1998). Invited Commentary on Y. Amit, "Tree-structured vision and selective attention," NEC/NYU Workshop on *Learning and Development in Vision, New York.*

Elder, J.H. (1996). Invited Commentary on Pessoa et al., "Finding out about filling in", *The Mind as a Scientific Object: an Interdisciplinary Seminar, Toronto*.

Elder, J.H. (1996). Are images one-dimensional? *2nd NEC Research Institute Vision Workshop, Princeton, NJ.*

Elder, J.H. (1995). Scale adaptation and blur estimation. *5th IRIS-PRECARN Conference, Vancouver*.

Elder, J.H. (1992). Integrating figure fragments. *Québec Inter-University Computer Vision Meeting, Montréal.*

Invited Presentations

Elder, J.H. (2015) Video Analytics for Sustainable Cities, *Canadian Visual Analytics School*, York University, Toronto.

Elder, J.H. (2015) General Purpose Models in Biological and Computer Vision, *Symposium on Machine Vision, European Conference on Visual Perception*, Liverpool, UK.

Elder, J.H. (2015) Human and Computer Vision: Common Ground, *Visual Inference in Humans and Machines Workshop,* Bath, UK.

Elder, J.H. (2015) Perceptual Organization of Shape, *York University Centre for Vision Research International Conference on Perceptual Organization,* Toronto.

Elder, J.H. (2014) Vision for CV/AV, *Connected Vehicle / Autonomous Vehicle Meeting, Ontario Ministry of Economic Development, Employment & Infrastructure*, Toronto.

Elder, J.H. (2014) Generative models of shape, *Symposium on Segmentation and Shape*, *Canadian Conference on Computer and Robot Vision*, Montreal.

Elder, J.H. (2013) Configural determinants of the perceptual organization of shape, *Configural Processing Consortium Meeting*, Toronto.

Elder, J.H. (2013) 2D/3D conversion: A love story. *3D Film Innovation Consortium Workshop, When and Why Should I Consider 2D to 3D Conversion?*, Toronto.

Elder, J.H. (2010) On grouping and formlets: The role of shape in perceptual organization. *ECCV Workshop on Shape Perception in Human and Computer Vision*, Crete, Greece.

Elder, J.H. (2010) Bringing 3D urban models to life. *The Golden Age of Geo-Positioning: Constructing Business Solutions*, Niagara-on-the-Lake.

Elder, J.H. (2009) Segmenting salient shapes. *Mathematics and Image Analysis Conference*, Paris, France.

Elder, J.H. (2009) Perceptual segmentation of salient shapes. *GDR Mathématiques des systèmes perceptifs et cognitifs*, Paris, France.

Elder, J.H. & Estrada, F. (2007) A Bayesian multi-scale model of perceptual organization, Symposium on Perceptual Organization and Computation, Vision Sciences Society Conference, Florida.

Elder, J.H. (2005) Perceptual organization of contours, *Workshop on Early Vision: Computational and Biological*, Bertinoro, Italy.

Elder, J.H. (2005) Finding and recognizing people in unconstrained environments, *CIAR Neural Computation and Adaptive Perception Meeting, Toronto, Canada.*.

Elder, J.H. (2004) Visual coding of contours*, Early Cognitive Vision Workshop*, Isle of Skye, Scotland.

Elder, J.H. (2003) Visual processing of contours, *Computational Neuroscientists of Upper Canada Meeting*, October 2003.

Elder, J.H. (2002) Ecological statistics of Gestalt laws for the perceptual organization of contours*, Gordon Research Conference on Sensory coding and the natural environment: Probabilistic models of perception*, Mount Holyoke College, MA, June 2002.

Invited Colloquia

Elder, J.H. (2015) Visual perception: The ultimate big data problem, *Coast-to-Coast Seminar Series, Center for Interdisciplinary Research in the Mathematical and Computational Sciences, Simon Fraser University, Burnaby, BC.*

Elder, J.H. (2015) Interdisciplinary research in biological and computer vision: Challenges and opportunities, *Center for Imaging Science, Rutgers Institute of Technology, New Brunswick, NJ.*

Elder, J.H. (2015) Perceptual organization of shape, *Bristol Vision Institute, Bristol University, UK.*

Elder, J.H. (2015) Perceptual organization of shape, *Craik Club Seminar, Cambridge University, UK.*

Elder, J.H. (2013) Perceptual organization of shape, *Department of Computer Science, McGill University.*

Elder, J.H. (2013) Perceptual organization of shape, *Centre for Perceptual Systems, University of Texas, Austin.*

Elder, J.H. (2013) Dynamic activity mapping for sustainable urban environments, *York University CIVDDD Brownbag Seminar.*

Elder, J.H. (2012) 3DTown: The automatic urban awareness project, *Digifest 2012*, Toronto.

Elder, J.H. (2012) Perceptual organization of shape, *Centre for Vision Research, York University.*

Elder, J.H. (2012) 3DTown: The automatic urban awareness project, *Ontario Association for Remote Sensing Dinner Meeting.*

Elder, J.H. (2011) On grouping and formlets: The role of shape in perceptual organization, *University of Western Ontario Computer Science Seminar.*

Elder, J.H. (2010) On growth and formlets: Sparse multi-scale coding of planar shape, *University of Toronto Computer Vision Seminar.*

Elder, J.H. (2009) Perceptual segmentation of salient shapes, *Institut des Systèmes Intelligents et de Robotique, Université Pierre et Marie CURIE, Paris, France.*

Elder, J.H. (2009) Perceptual segmentation of salient shapes, *Universite Paris Descartes, France.*

Elder, J.H. (2009) Perceptual segmentation of salient shapes, *Max Planck Institute, Tubingen, Germany.*

Elder, J.H. (2009) Perceptual segmentation of salient shapes, *CNRS- Université Paul Sabatier, Toulouse, France.*

Elder, J.H. (2009) Attention is surprising, *Universite Paris Descartes, France.*

Elder, J.H. (2008) Cities, jungles and contours, *Centre for Intelligent Machines, McGill University, Montreal, Canada.*

Elder, J.H. (2008) Perceptual organization of contours, *Centre for Vision Science, University of Rochester, NY.*

Elder, J.H. (2007) A geometric model of V1 neural selectivity, *Centre for Vision Research, York University*.

Elder, J.H. (2005) Attentive people-finding, *GE Global Research, Schenectedy, NY.*

Elder, J.H. (2004) Statistical cue integration in human and machine vision, *Computer Science Department, University of Toronto, Canada..*

Elder, J.H. (2003) Visual processing of contours, *Centre for Intelligent Machines, McGill University, Montreal, Canada.*

Elder, J.H. (2003) Visual processing of contours, *Department of Psychology, University of California, Los Angeles.*

Elder, J.H. (2003) Visual processing of contours, *Oxyopia Seminar Series, School of Optometry, University of California, Berkeley.*

Elder, J.H. (2003) Psychophysical estimation of edge detection mechanisms, *Smith-Kettlewell Eye Research Institute, San Francisco, CA.*

Elder, J.H. (2002) From edges to objects: visual processing of contours in human and machine, *University of Stirling.*

Elder, J.H. (2002) From edges to objects: visual processing of contours in human and machine, *University of Aston Neurosciences Research Institute.*

Elder, J.H. (2002) Are contours dead?, *University of Glasgow Psychology Department.*

Elder, J.H. (2001) Computation of visual contours in natural and artificial vision systems *University of British Columbia Psychology Department.*

Elder, J.H. (2001) Computation of visual contours in natural and artificial vision systems *McGill University Computer Science Department.*

Elder, J.H. (2001) Computation of visual contours in natural and artificial vision systems *University of Toronto Computer Vision Seminar.*

Elder, J.H. (2000) Are images one-dimensional? *Sarnoff Corporation, Princeton, NJ.*

Elder, J.H. (2000) The ecology of image contours. *NEC Research Institute, Princeton, NJ..*

Elder, J.H. (2000) Computational modeling of stereoacuity for binocularly uncorrelated (2nd order) stimuli: rectification is not enough. *McGill University Vision Research Seminar, Montreal, Canada.*

Elder, J.H. (2000) Are images one-dimensional? *York University Department of Mathematics Colloquium and Applied Mathematics Seminar.*

Elder, J.H. (1999) Are edges incomplete? *Dalsa Inc., Waterloo, Canada.*

Elder, J.H. (1997). What is the right model for the local blurring of natural images? *York University Centre for Vision Research Lecture Series.*

Elder, J.H. (1996). In defense of the contour code. *York University Centre for Vision Research Lecture Series.*

Elder, J.H. (1996). Computing contour closure. *Rutgers University Series on Human and Computer Vision, New Brunswick, New Jersey.*

Elder, J.H. (1995). Local and global problems in the visual processing of contour. *NEC Research Institute, Princeton, NJ.*

Elder, J.H. (1995). Local and global problems in the visual processing of contour. *Cambridge Basic Research, Cambridge, MA.*

Conference Demonstrations

3DTown: The automatic urban awareness project. *2011 GEOIDE Scientific Conference*, Toronto.

3DTown: The automatic urban awareness project. *2011 OCE Discovery Conference*, Toronto.

Three-dimensionalizing surveillance networks. *2009 GEOIDE Scientific Conference*, Vancouver.

Attentive panoramic sensing for visual telepresence. 2*002 IRIS/PRECARN Conference*, Montreal.

Foveated panoramic sensing. *2000 IRIS/PRECARN Conference*, Montreal.

Patents

U.S. Patent 7,130,490, *Attentive panoramic visual sensor,* awarded October 31, 2006.

Canadian Patent #2,386,347, *Attentive panoramic sensing for visual telepresence,* awarded September 5, 2012.

Print Media

Seeing Machines – York University's Elder Lab is developing cameras that behave like the human eye. (2011, July 30). *The National Post*, p. A6. *http://news.nationalpost.com/2011/07/30/seeing-machines-developing-cameras-that-can-see-like-humans/#more-82570*

Broadcast Media

Not quite outer space but…, CBC News: Toronto (CBLT-TV) (2011, July 13).

Discussion with James Elder, Professor of Engineering and Psychology, York University… Here & Now (CBLA-FM). (2011, July 13).

Online Media

Ontario Centres of Excellence – Success Story. *http://www.oce-ontario.org/meet-our-companies/success-story/2012/01/09/dr.-james-elder*

Unmanned aerial vehicle taking a close look at York University − in 3D. York University Media Relations. *http://news.yorku.ca/2011/07/13/unmanned-aerial-vehicle-taking-a-close-look-at-york-university-%E2%88%92-in-3d/*

Research Grants

2015-2021   Principal Investigator, Natural Sciences and Engineering Research Council (NSERC) Collaborative Research and Training Experience, *Data Analytics & Visualization* **($1,650,000 over 6 years)**

2015-2020   Principal Investigator, Natural Sciences and Engineering Research Council (NSERC) Discovery Grant *Recurrent computations for the perceptual organization of shape* **($180,000 over five years)**

2015-2016   Co-Investigator, Big Data Research and Analytics Information Network (BRAIN), *Developing Tools for Visual Interactive Data and Pattern Analysis* **($20,000)**

2015-2016   Principal Investigator, Ministry of Transportation Ontario Highway Infrastructure Innovation Funding Program, *Automatic 3D Traffic Analysis from Highway Video Data* **($61,919)**

2015-2016   Research Team Lead, Centre for Innovation in Information Visualization and Data-Driven Design, *Dynamic Carbon Activity Mapping in Urban Environments* **($58,000)**

2014-2015   Principal Investigator, Ontario Centres of Excellence VIP 1 Program, *DM&T – York CVAV License Plate Redaction Project* **($25,000).**

2014-2015   Principal Investigator, Ministry of Transportation Ontario Highway Infrastructure Innovation Funding Program, *Automatic 3D Traffic Analysis from COMPASS Highway Camera Data* **($50,625).**

2013-2014   Principal Investigator, NSERC Engage Grant, *Attentive Sensing for Sports Video Applications* **($25,000 over 6 months)**

2013-2014   Principal Investigator, NSERC Regional Opportunities Fund, *3D Urban Sustainability Workshop* **($3,000 over 2 months)**

2014-2015   Research Team Lead, Centre for Innovation in Information Visualization and Data-Driven Design, *Dynamic Carbon Activity Mapping in Urban Environments* **($60,833)**

2013-2014   Research Team Lead, Centre for Innovation in Information Visualization and Data-Driven Design, *Dynamic Carbon Activity Mapping in Urban Environments* **($20,000)**

2012-2013   Research Team Lead, Centre for Innovation in Information Visualization and Data-Driven Design, *Dynamic Carbon Activity Mapping in Urban Environments* **($25,000)**

2011-2017   Co-Investigator, Natural Sciences and Engineering Research Council (NSERC) Collaborative Research and Training Experience, *Vision Science and Applications* **($1,650,000 over six years)**

2011   Principal Investigator, NSERC Engage Grant, *An Expert System for the Home Improvement Market Using Computer Vision: Feasibility Study* **($25,000 over six months)**

2010-2015   Principal Investigator, Natural Sciences and Engineering Research Council (NSERC) Discovery Grant *Hierarchical systems for visual shape perception* **($210,000 over five years)**

2010-2013   Project Leader and Co-Investigator, Ontario Centres of Excellence Earth and Environmental Technologies (OCE-ETech), *Three-Dimensionalizing Surveillance Networks ($436,509 over 3 years)*

2009-2012   Project Leader and Co-Investigator, Geomatics for Informed Decisions (GEOIDE), *Three-Dimensionalizing Surveillance Networks ($727,500 over three years)*

2008-2009   Project Leader and Co-Investigator, Geomatics for Informed Decisions (GEOIDE) Pilot Project, *Three-Dimensionalizing Surveillance Networks ($50,000 over one year)*

2008-2009   Project Leader and Co-Investigator, Ontario Centres of Excellence Earth and Environmental Technologies (OCE-ETech), Pilot Project, *Three-Dimensionalizing Surveillance Networks ($25,000 over five months)*

2008-2009   Principal Investigator, DRDC Toronto Contract No. W7711-078119, R&D Real-time surveillance **($190,000 over one and a half years)**

2005-2008   Principal Investigator, Ontario Centres of Excellence Earth and Environmental Technologies (OCE-ETech), *Real-time visual surveillance for search and rescue and other security applications* **($240,000 over three years)**

2006   Principal Investigator,, subcontract by Array Systems Inc. for DRDC TIES Contract W7711-4-7924 Call-Up #9 **($45,000)**

2005-2010   Principal Investigator, Natural Sciences and Engineering Research Council (NSERC) Discovery Grant *Visual computation of salient contours* **($154,000 over five years)**

2005-2009   Project Leader and Co-Investigator, Geomatics for Informed Decisions (GEOIDE), *Monitoring Changes to Urban Environments using Wireless Sensing Networks* **($510,000 over four years)**

2004-2005   Co-Investigator, Centre for Research in Earth and Space Technology (CRESTech) Core Program Funding, with M. Jenkin (Project Leader, York) *A novel sensor to aid in distance learning* **($34,840)**

2004-2005   Principal Investigator, Centre for Research in Earth and Space Technology (CRESTech) Core Program Funding, *Attentive Panoramic Sensing for Surveillance and Security* **($50,000)**

2004-2005   Principal Investigator, Centre for Research in Earth and Space Technology (CRESTech) Core Program Funding, *Computational and Perceptual Research on Enhanced/Synthetic Vision Systems for Aircraft* **($30,000)**

2003-2008   Principal Investigator, Premier's Research Excellence Award, *From Edges to Objects: Visual Processing of Contours in Human and Machine* **($150,000 over five years)**

2003-2005   Co-Investigator, PRECARN University-Led Project, Monitoring of Extended Premises: Tracking Pedestrians Using a Network of Loosely Coupled Cameras **($400,000 over two years)**

2003-2004   Principal Investigator, Centre for Research in Earth and Space Technology (CRESTech) Core Program Funding, *Attentive Panoramic Sensing for Surveillance and Security* **($55,042)**

2003-2004   Project Leader, Centre for Research in Earth and Space Technology (CRESTech) Core Program Funding, *Computational and Perceptual Research on Enhanced/Synthetic Vision Systems for Aircraft* **($30,160)**

2003-2004   Co-Investigator, Centre for Research in Earth and Space Technology (CRESTech) Core Program Funding, with M. Jenkin (Project Leader, York) *A novel sensor to aid in distance learning* **($34,840)**

2003-2004   Principal Investigator, Natural Resources Canada funding in support of GEOIDE Project **($25,000)**

2003   Principal Investigator, Short Term Fellowship, International Human Frontier Science Program Organization, *Perceptual organization and nonlinear processing in visual cortex* **($10,914)**

2002-2005   Project Leader and Co-Investigator, Institute for Robotics and Intelligent Systems (IRIS) Grant, with J. Clark (McGill) and J. Tsotsos (York), *Visual intelligence for surveillance and telepresence applications* **($600,000 over three years)**

2002-2005   Project Leader and Co-Investigator, Geomatics for Informed Decisions (GEOID) Grant, with D. Clausi (Waterloo), G. Edwards (Laval), F. Ferrie (McGill), J. Little (UBC), *Intelligent data fusion for aircraft navigation and disaster management* **($510,000 over three years)**

2001-2005   Principal Investigator, Natural Sciences and Engineering Research Council (NSERC) Research Grant *Psychophysical and computational investigation of visual contour processing* **($116,000 over four years)**

2002-2003   Principal Investigator, Centre for Research in Earth and Space Technology (CRESTech) Core Program Funding, *Attentive Panoramic Sensing for Surveillance and Security* **($47,650)**

2002-2003   Principal Investigator, Centre for Research in Earth and Space Technology (CRESTech) Core Program Funding, *Computational and Perceptual Research on Enhanced/Synthetic Vision Systems for Aircraft* **($47,650)**

2002-2003   Co-Investigator, Centre for Research in Earth and Space Technology (CRESTech) Core Program Funding, with M. Jenkin (Project Leader, York) *A novel sensor to aid in distance learning* **($37,859)**

2002-2003   Principal Investigator, Natural Resources Canada funding in support of GEOIDE Project **($25,000)**

2001-2004   Co-Investigator, NSERC Major Facilities Access Grant, with members of the York Centre for Vision Research, *Personnel Support for York's Centre for Vision Research* **($408,000)**

2001-2002   Principal Investigator, Centre for Research in Earth and Space Technology (CRESTech) Core Program Funding, *Extraction of Features from Remote-Sensed Imagery for Search*

and Rescue Database **($47,650)**

2001-2002 Principal Investigator, Centre for Research in Earth and Space Technology (CRESTech) Core Program Funding, *Research and evaluation of attentional factors for telepresence and virtual reality technologies* **($15,910)**

2001-2002 Principal Investigator, Natural Resources Canada funding in support of GEOIDE Project **($16,000)**

2000-2001 Principal Investigator, Centre for Research in Earth and Space Technology (CRESTech) Core Program Funding, *Extraction of Features from Remote-Sensed Imagery for Search and Rescue Database* **($50,000)**

2000-2001 Principal Investigator, CRESTech Core Program Funding, *Research and evaluation of attentional factors for telepresence and virtual reality technologies* **($20,000)**

2000-2001 Principal Investigator, Centre for Research in Earth and Space Technology (CRESTech) Project Opportunity Funding, *Feature classification and surface modelling for a search and rescue synthetic vision database using high resolution satellite imagery* **($20,000)**

2000-2001 Co-Investigator, NSERC Major Facilities Access Grant, with members of the York Centre for Vision Research, *Personnel Support for York's Centre for Vision Research* **($91,000)**

1999-2002 Project Leader and Co-Investigator, Geomatics for Informed Decisions (GEOIDE) Grant, with colleagues at Laval University, McGill University, The University of BC, and The University of Waterloo, *Extraction of Features from Remote-Sensed Imagery for Search and Rescue Database* **($585,000 over three years)**

1999-2002 Co-Investigator, Ontario Research and Development Challenge Fund (ORDCF), with members of the York Centre for Vision Research, *Improvements to the Centre for Vision Research at York University (***$228,000 over three years)**

1999-2002 Co-Investigator, Canadian Foundation for Innovation (CFI) Institutional Innovation Grant, with members of the York Centre for Vision Research, *Active Sensory Processing in Real and Synthetic Environments* **($5,800,000 over three years)**

1999-2000 Principal Investigator, Centre for Research in Earth and Space Technology (CRESTech) Core Program Funding, *Extraction of Features from Remote-Sensed Imagery for Search and Rescue Database* **($50,000)**

1999-2000 Project Leader, Centre for Research in Earth and Space Technology (CRESTech) Core Program Funding, *Research and evaluation of attentional factors for telepresence and virtual reality technologies* **($20,000)**

1998-2002 Project Leader and Co-Investigator, Institute for Robotics and Intelligent Systems (IRIS) Grant, with colleagues at McGill University and York University, *Research and evaluation of attentional factors for telepresence and virtual reality technologies* **($480,000 over four years)**

1998-2001 Project Leader and Co-Investigator, CFI New Opportunities Grant, with L. Wilcox (York University), *Attentive 3D Visual Processing* **($454,500)**

1998-1999	Co-Investigator, Centre for Research in Earth and Space Technology (CRESTech) Core Program Funding, with Paul Shepherd, CRESTech, *Remote sensed data and perceptual factors for ESVS demonstrator project* **($50,000)**
1998-1999	Principal Investigator, Centre for Research in Earth and Space Technology (CRESTech) Project Opportunity Funding, *Research and evaluation of attentional factors for telepresence and virtual reality technologies* **($20,000)**
1998-1999	Project Leader and Co-Investigator, DND contract (With Paul Shepherd, CRESTech*), Remote sensed data and perceptual factors for ESVS demonstrator project* **($50,000)**
1997-2001	Principal Investigator, Natural Sciences and Engineering Research Council (NSERC) Research Grant *Psychophysical and computational investigation of visual contour representations* **($107,500 over four years)**
1997-1998	Project Leader and Co-Investigator, DND/CRESTech Subcontract from University of Toronto (With Paul Shepherd, CRESTech)*, Generation of Synthetic Images for ESVS* **($85,000)**
1997-1998	Principal Investigator, Natural Sciences and Engineering Research Council (NSERC) Equipment Grant *Equipment to establish laboratory for visual psychophysics and computational modeling* **($25,630)**
1997-1998	Principal Investigator, Faculty of Arts Special Computer Matching Grant **($1,800)**
1996	Principal Investigator, York University Faculty of Arts Research Grant*, Contour classification and texture coding of natural images* **($3,500)**
1996	Principal Investigator, York University Startup Funds **($20,000)**

Contributions to the Profession

Editorial Boards

2008-present	Editorial Board, *Journal of Vision*
2007-2012	Editorial Board, *IET Computer Visio*n
2014-2016	Guest Editor, *Vision Research*, Special Issue on Vision and the Statistics of the Natural Environment
2007	Guest Editor, *Journal of Vision*, Special Issue on Perceptual Organization and Neural Computation
2006	Guest Editor, *Journal of Vision*, Special Issue on Finding Visual Features: Using Stochastic Stimuli to Discover Internal Representations
2004- present	Review Committee, Vision Sciences Society
2003- present	Editorial Board, *ACM Transactions on Applied Perception*

Conference Organization

2016	Session Organizer, Annual Interdisciplinary Conference, Breckenridge, CO.
2015	Organizer and Chair, Big Data and Intelligent Transportation Systems Panel, EAI International Conference on Big Data and Analytics for Smart Cities, Toronto.
2015	Organizer and Chair, York University Centre for Vision Research International Conference on Perceptual Organization, Toronto.
2014	Session Organizer, Annual Interdisciplinary Conference, Jackson Hole, WY.
2013	Local Host, Configural Processing Consortium Meeting, Toronto.
2013	Co-Organizer, Sustainable Urban Models Augmentation Consortium (SUMAC) Meeting, Toronto.
2006	Organizer and Chair (with Jeff Siskind), 5th IEEE International Workshop on Perceptual Organization in Computer Vision, New York, NY.
2006	Session Organizer, Gordon Research Conference on Sensory Coding and the Natural Environment: Scene Statistics and Computer Vision
2005	Organizer, Natural Image Statistics and Applications Session, International Conference on Computational Vision in Neural and Machine Systems, Toronto, ON
2001	Organizer, Workshop on Enhanced and/or Synthetic Vision, Toronto Congress Centre

Conference Committees

2016	Member, Review Committee, IEEE Computer Society International Conference on Computer Vision and Pattern Recognition (CVPR), Las Vegas, Nevada
2016	Member, Program Committee, Computer and Robot Vision Conference (CRV), Victoria, BC
2015	Member, Program Committee, Computational Models of the Visual Cortex (CMVC), New York
2015	Member, Review Committee, Neural Information Processing Systems (NIPS), Montreal
2015	Member, Review Committee, IEEE Computer Society International Conference on Computer Vision (ICCV), Chile
2015	Member, Review Committee, CogSci 2015, Pasadena, CA.
2015	Member, Program Committee, Computer and Robot Vision Conference (CRV), Halifax, NS
2015	Member, Review Committee, IEEE Computer Society International Conference on Computer Vision and Pattern Recognition (CVPR), Boston, Mass
2014	Member, Review Committee, Neural Information Processing Systems (NIPS), Montreal
2014	Member, Review Committee, European Conference on Computer Vision (ECCV), Zurich, Switzerland

2014	Member, Program Committee, Computer and Robot Vision Conference (CRV), Montreal, Quebec
2014	Member, Review Committee, IEEE Computer Society International Conference on Computer Vision and Pattern Recognition (CVPR), Columbus, Ohio
2013	Member, Review Committee, Neural Information Processing Systems (NIPS), Lake Tahoe
2013	Member, Review Committee, IEEE Computer Society International Conference on Computer Vision (ICCV), Australia
2013	Member, Program Committee, Canadian Conference on Computer and Robot Vision (CRV), Regina.
2013	Member, Program Committee, IEEE Computer Society International Conference on Computer Vision and Pattern Recognition (CVPR), Portland, Oregon
2012	Member, Review Committee, Neural Information Processing Systems (NIPS), Lake Tahoe.
2012	Member, Review Committee, European Conference on Computer Vision (ECCV), Florence.
2012	Member, Program Committee, Canadian Conference on Computer and Robot Vision (CRV), Toronto.
2012	Member, Program Committee, IEEE Computer Society International Conference on Computer Vision and Pattern Recognition (CVPR), Rhode Island
2011	Member, Programme Committee, Applied Perception in Graphics and Visualization (APGV), Toulouse
2011	Member, Programme Committee, Canadian Computer and Robot Vision Conference (CRV), St. John's, Newfoundland
2011	Member, Review Committee, IEEE Computer Society International Conference on Computer Vision and Pattern Recognition (CVPR), Colorado Springs
2010	Member, Review Committee, European Conference on Computer Vision (ECCV), Crete, Greece
2010	Member, Programme Committee, Applied Perception in Graphics and Visualization (APGV), Los Angeles
2010	Member, Review Committee, IEEE Computer Society International Conference on Computer Vision and Pattern Recognition (CVPR), San Francisco, CA
2009	Member, Review Committee, Neural Information Processing Systems (NIPS), Vancouver, Canada
2009	Member, Review Committee, International Conference on Computer Vision (ICCV), Kyoto, Japan
2009	Member, Review Committee, IEEE Computer Society International Conference on Computer Vision and Pattern Recognition (CVPR), Miami, FL
2009	Member, Programme Committee, Applied Perception in Graphics and Visualization (APGV), Crete, Greece

2009	Member, Programme Committee, Canadian Conference on Computer and Robot Vision (CRV), Kelowna, BC
2008	Member, Programme Committee, Neural Information Processing Systems (NIPS), Vancouver, Canada
2008	Member, Programme Committee, European Conference on Computer Vision (ECCV), Marseille, France
2008	Member, Programme Committee, IEEE Computer Society International Conference on Computer Vision and Pattern Recognition (CVPR), Anchorage, AL
2008	Member, Programme Committee, Applied Perception in Graphics and Visualization (APGV), Los Angeles, CA
2008	Member, Programme Committee, IEEE Computer Society Conference on Perceptual Organization in Computer Vision (POCV), Anchorage, AL
2008	Member, Programme Committee, Canadian Conference on Computer and Robot Vision (CRV), Windsor
2007	Member, Programme Committee, Workshop on Interactive Computer Vision, Rio de Janeiro, Brazil
2007	Member, Programme Committee, IEEE Computer Society International Conference on Computer Vision and Pattern Recognition (CVPR), Minneapolis, MN
2007	Member, Programme Committee, Symposium on Applied Perception in Graphics and Visualization (APGV), Tubingen, Germany
2007	Member, Programme Committee, Canadian Conference on Computer and Robot Vision (CRV), Montreal
2006	Member, Programme Committee, Symposium on Applied Perception in Graphics and Visualization (APGV), Boston, Mass.
2006	Member, Programme Committee, IEEE Computer Society International Conference on Computer Vision and Pattern Recognition (CVPR), New York, NY
2006	Member, Programme Committee, European Conference on Computer Vision (ECCV), Graz, Austria
2006	Member, Programme Committee, Canadian Conference on Computer and Robot Vision (CVPR), Quebec City
2005	Member, Programme Committee, IEEE International Conference on Computer Vision (ICCV), Beijing, China
2005	Member, Programme Committee, Symposium on Applied Perception in Graphics and Visualization (APGV), A Coruna, Spain
2005	Member, Programme Committee, IEEE Computer Society International Conference on Computer Vision and Pattern Recognition (CVPR), San Diego, CA

2005	Member, Programme Committee, Canadian Conference on Computer and Robot Vision (CRV), Victoria, BC
2004	Member, Programme Committee, ACM SIGGRAPH Symposium on Applied Perception in Graphics and Visualization (APGV), Los Angeles, CA
2004	Member, Programme Committee, IEEE Computer Society International Conference on Computer Vision and Pattern Recognition (CVPR), Washington, DC
2004	Member, Programme Committee, IEEE Workshop on Perceptual Organization in Computer Vision (POCV), Washington, DC
1999	Member, Programme Committee , 7th IEEE International Conference on Computer Vision (ICCV), Corfu, Greece
1997-2003	Human Performance in an Aerospace Environment Theme Committee, Centre for Research in Earth and Space Technology

Review Panels

2008	U.S. Department of Energy Pacific Northwest National Laboratory Proliferation Deterrence Merit Review for Project PDP06-43, *Image Recognition and Classification Based on Object Parts*, Temple University, Philadelphia, PA

External Tenure & Promotion Reviews

2013	Concordia University, Montreal
2009	City University of New York
2008	University of Western Ontario
2007	University of California, Berkeley

Grants Refereed

Human Frontier Science Program

NSF Grants

NSF Career Grants

NSERC Discovery Grants

FCAR Collaborative Grants

Publications Refereed

ACM SIGGRAPH
ACM Transactions on Applied Perception
Acta Psychologica
Brain Research

Cognitive Psychology
Computer Vision and Image Understanding
Current Biology
European Conference on Visual Perception
IEEE Conference on Computer Vision and Pattern Recognition
IEEE Signal Processing Letters
IEEE Transactions on Image Processing
IEEE Transactions on Pattern Analysis and Machine Intelligence
IEEE Transactions on Systems, Man and Cybernetics
Image and Vision Computing
Institution of Engineering and Technology Image Processing
International Conference on Computer Vision
International Conference on Pattern Recognition
International Joint Conference On Artificial Intelligence
International Journal of Computer Vision
Journal of Cognitive Neuroscience
Journal of Neurophysiology
Journal of the Optical Society of America
Journal of Vision
Network: Computation in Neural Systems
Neural Computation
Neural Information Processing Systems
Perception
Perception & Psychophysics
PLOS Computational Biology
Psychological Review
Psychological Science
Psychonomic Bulletin & Review
Scientific Reports
Seeing and Perceiving (formerly Spatial Vision)
Vision Interface
Vision Research
Vision Sciences Society

Professional Associations

Licensed Professional Engineer, Professional Engineers Ontario
Member, Institute for Electrical and Electronic Engineers (IEEE)
Member, IEEE Computer Society

TEACHING

Undergraduate Teaching

Courses Taught

2015-2016	EECS 2011E.3	Fundamentals of Data Structures
2014-2015	EECS 2011Z.3	Fundamentals of Data Structures
2013-2014	CSE 4404A.3	Introduction to Machine Learning and Pattern Recognition
2013-2014	CSE 2011Z.3	Fundamentals of Data Structures
2012-2013	PSYC 3031A.3	Intermediate Statistics Laboratory
2012-2013	CSE 4404A.3	Introduction to Machine Learning and Pattern Recognition
2011-2012	CSE 4404A.3	Introduction to Machine Learning and Pattern Recognition
2011-2012	CSE 2011Z.3	Fundamentals of Data Structures
2009-2010	CSE 2011Z.3	Fundamentals of Data Structures
2008-2009	CSE 3101Z.3	Design and Analysis of Algorithms
2007-2008	CSE 3101E.3	Design and Analysis of Algorithms
2006-2007	CSE 3101B.3	Design and Analysis of Algorithms
2003-2004	CSE 3101N.3	Design and Analysis of Algorithms
2001-2002	PSYC 3510D.3	Special Topics: Psychophysics and Computers
2000-2001	PSYC 3510D.3	Special Topics: Psychophysics and Computers
1999-2000	PSYC 3510D.3	Special Topics: Psychophysics and Computers
1997-1999	PSYC 2022M.3	Introduction to Inferential Statistics
1996-1998	PSYC 2020C.6	Introduction to Psychological Data

Courses Developed

2011-2012	CSE 4404	Introduction to Machine Learning and Pattern Recognition
1999-2000	PSYCH 3510	Special Topics: Psychophysics and Computers

Invited Lectures

2011-2012	CSE 1001 Research Directions in Computing
2007-2014	York CVR Vision Science Summer School

Undergraduate Honours Theses, Independent Readings and Senior Projects

Dates	Name	Thesis / Project Title	Current Position
2016	Maria Chang	*The dual presentation paradigm and recurrent processing in object pathway*	*Undergraduate student, York University*
2013-2014	Yuen Lau, Marcin Matynia	*Operational transformation software*	*Co-founder, UniSwipe* *Software Developer Intern, Blackberry*
2011-2012	Albert VanderMeulen	*Automatic picture book generator*	*Senior Software Engineer, SiteScout*
2011-2012	Galina Goren	*Psychophysical methods for studying feedback in the object pathway*	*Master's Student, York University*
2010-2011	Alex Yakubovich	*Accelerating formlet-based representations of shape*	*Master's Student, York University*

2009-2010	Thomas Young	*Low cost three dimensional face scanning system*	*Master's Student, York University*
2008-2009	Kiret Dhindsa	*Boosting methods for the estimation of geometric receptive field models of V1 neurons*	*PhD Candidate, McMaster University*
2007-2008	Aryan Kamyab	*Selectivity of exogenous attention mechanisms for facial cues*	
2007-2008	Brent Ruston	*Low-cost 3D face scanning system*	*Lawyer, Asscoiate, Anderson MacKeigan LLP, Toronto*
2006-2007	Dahlia Balaban	*Probing visual attention in natural images*	*Family Medicine Resident, Mount Sinai Hospital, Toronto*
2005-2006	Shree Kargutkar	*Spatial attention and natural images*	*Research Analyst, Sprott Asset Management*
2004-2005	Sharmistha Chaudhuri	*Estimating orientation in natural images*	*Lead Software Engineer, GE Healthcare*
2004-2005	Miro Kuc	*Efficient models of natural 2D shapes*	*Programmer Analyst, Molson Coors Canada, Great Lakes Fishery*
2003-2004	Deepak Lakra	*Top-down effects on brightness perception*	
2003-2004	Mikhail Sizintsev	*Face detection for attentive wide-field sensor*	*Computer Scientist, SRI International Sarnoff*
2002-2003	Yubin Liao	*Velocity control for attentive panoramic sensor*	
2002-2003	Xin Liu	*Face detection for attentive panoramic sensor*	
2001-2002	Yaniv Morgenstern	*Visual detection efficiency of curvilinear patterns of oriented elements in clutter*	*Postdoctoral Fellow, Duke-NUS Graduate Medical School*
2000-2001	Yaniv Morgenstern	*Visual detection efficiency of curvilinear dot patterns in clutter*	Postdoctoral Fellow, Duke-NUS Graduate Medical School
1999-2000	Aarlenne Khan	*Effects of visual eccentricity on visual recall.*	*Postdoctoral Fellow, Queen's University*
1999-2000	Natasha Martin	*Perceptual factors in visual telepresence*	
1999-2000	Philip Jaekl	*Visual fusion and surface attitude judgements of transparent textured surfaces*	*Postdoctoral Fellow, University of Rochestor*
1999-2000	Carl Gaspar	*Comparison of task and psychophysical methodology in estimating the efficiency of visual edge detection*	
1998-1999	Dmitry Beniaminov	*Characterizing uncertainty in visual edge classification*	Senior Manager of Digital Operations, St. Joseph Media
1998	Linda Ku	*Contour-based image compression: Huffman encoding and reconstruction of a line segment representation*	

1999	Branka Otasevic	*Contour-based image compression: spline encoding of photometric contour properties*	IT Solution Developer , TD Bank
1998	Branka Otasevic	*Contour-based image compression: encoding and reconstruction from uniform B-spline models*	IT Solution Developer , TD Bank
1997	Rick Goldberg	*A novel contour-based image editing system*	Human Factors Specialist, IBM
1996-1997	Scott Best	*Classifying contours in natural images*	

NSERC and Lassonde Undergraduate Summer Students

2016	Juan Loja	*Smooth pursuit for traffic video systems*	*Undergraduate student, York University*
2016	Amanpreet Walia	*A new dual-mirror attentive sensor*	*Undergraduate student, York University*
2016	Praise Ayorinde	*Virtualized & integrated video analytics (VIVA)*	*Undergraduate student, York University*
2016	Sherief Aboelaze	*Attentive sensing for sports videography*	*Undergraduate student, York University*
2016	Kristen Mcintosh	*Integration of endogenous and exogenous attention*	*Undergraduate student, York University*
2015	Ryan Dowling	*Hardware and control for attentive tracking system*	*Undergraduate student, Queen's University*
2015	Juan Loja	*Algorithms and software for attentive tracking system*	*Undergraduate student, York University*
2015	Amanpreet Walia	*Embedded computing for attentive tracking system*	*Undergraduate student, York University*
2013	Yuping Lin	*Evaluating trackers for sports video*	*Graduate student, York University*
2012	Yuen Lau	*Occupancy measurement using the Kinect sensor*	*Co-founder, UniSwipe*
2011	Herman Badwal	*Pedestrian tracking*	*Software developer, IBM Canada*
2010	Alex Yakubovich	*Accelerating formlet-based representations of shape*	*Data Scientist, Uken Games*
2009	Alex Yakubovich	*Unsupervised calibration of pan/tilt/zoom highway cameras*	*Data Scientist, Uken Games*
2008	Owais Khan	*Supervised learning for target detection and contour grouping*	*Design Engineer, Evertz*
2006	Hassan Masoom	*Streaming video from an attentive wide-field sensor*	*Medical Student, University of Toronto*

2005	Wendy Ng	*High-level determinants of brightness perception*	*Medical Resident, Plastic Surgery, McMaster University*
2005	Ivan Makarenka	*3D facial shape estimation and rendering*	*Software Engineer, IBM Toronto*
2005	Marie Jacob	*Modeling 2D shape projections*	*PhD student, University of Pennsylvania*
2003	Michael Sizintsev	*Face detection for attentive panoramic sensor*	*Computer Scientist, SRI International Sarnoff*
2002	Yubin Liao	*Attentive panoramic sensor design for remote learning application*	
2002	Xin Liu	*Automatic face detection for remote learning*	

Research at York (RAY) Undergraduate Summer Students

2012	Oyinda Daramola	*Improvements to PictureBook*	*Undergraduate Student, York University*

International Visiting Undergraduate Students

Sept-Dec 2014	Mandy Chan	Psychology	*Beijing University*
Jun-Aug 2013	Ruozhu Li	Computer Science	*University of Electronic Science and Technology of China*
May-Jul 2011	Vishal Kumar	Electronics and Electrical Communication Engineering	*IIT Kharagpur, India*

Undergraduate Research Assistants

2015-2016	Juan Loja	EECS	*Fast attentive sensing for smooth pursuit*
2014-2015	Kartikeya Bhargava	EECS	*Attentive sensor system software port*
2014	Mingbin Xu	EECS	*Computer vision software and dataset repository*
2014	Nada el-Assal	EECS	*Third generation attentive sensor prototype*
2003-2004	Christina Habberjam	Fine Arts	*Webmaster,Graphic Designer and Laboratory Librarian*
2001-2002	Ingrid Verhoecx	Psychology	*Organization of literature database*
2000-2001	Jazmine Orprecio	Psychology	*Organization of literature database*
2000	Joe Amati	Psychology	*Visual fusion and surface attitude judgements of transparent textured surfaces*
1999-2000	Michael Marder	Psychology	*Organization of literature database*
1998	Miriam Kuruvilla	Computer Science	*Extension of adaptive psychophysical threshold measurement software*
1998	Richard Platel	Computer	*Development of software for a psychophysical*

		Science	*investigation of texture fusion.*
1998	Nicholas Toth	Computer Science	*Development of software for measuring psychophysical thresholds using the Quest procedure in a Linux environment*
1997-1998	Stanislav Winitsky	Computer Science	*Software development for contour-based image compression.*
1997-1998	Don MacLean	Psychology	*Psychophysical investigation of contour classification.*
1996-1998	Greg Pintilie	Computer Science	*A Khoros-based system for visual psychophysics*

Graduate Teaching

Courses Taught

2014-2015	CSE 6390D/ PSYC 6750B	Computational Modeling of Visual Perception
2014-2015	PSYC 6228	Applications in Vision Science
2013-2014	CSE 5327A	Introduction to Machine Learning and Pattern Recognition
2012-2013	CSE 6390D/ PSYC 6750B	Computational Modeling of Visual Perception
2012-2013	PSYC 6256M	Principles of Neural Coding
2012-2013	CSE 5327A	Introduction to Machine Learning and Pattern Recognition
2011-2012	CSE 5327A	Introduction to Machine Learning and Pattern Recognition
2010-2011	PSYC 6256M	Principles of Neural Coding
2010-2011	CSE 6390D/ PSYC 6750B	Computational Modeling of Visual Perception
2008-2009	CSE 6400	Computer Engineering Research Project
2008-2009	PSYC 6130C	Univariate Analysis
2008-2009	CSE 6400	Computer Engineering Research Project
2008-2009	PSYC 6130C	Univariate Analysis
2007-2008	CSE 6390D/ PSYC 6750B	Computational Modeling of Visual Perception
2006-2007	PSYC 6130A	Univariate Analysis
2005-2006	PSYC 6130A	Univariate Analysis
2005-2006	CSE 6390D/ PSYC 6750B	Computational Modeling of Visual Perception
2003-2004	CSE 6390D/ PSYC 6750B	Computational Modeling of Visual Perception
2001-2002	PSYC 6750B	Computational Modeling of Visual Perception
1999-2000	PSYC 6750B	Computational Modeling of Visual Perception

Courses Developed

2011-2012	CSE 5327A	Introduction to Machine Learning and Pattern Recognition
2010-2011	PSYC 6526M	Principles of Neural Coding
1999-2000	PSYC 6750B	Special Topics: Computational Modeling of Visual Perception

Invited Lectures

2014   Perceptual Organization Summer School, Leuven, Belgium
2012   Computational Vision Summer School, Tubingen, Germany
2012-2013 BIOL 5149 Applications in Vision Science: Attentive Sensing
2008   Canadian Institute for Advanced Research Programme in Neural Computation and
             Adaptive Perception Summer School

Graduate Student Supervision

Dates	Name	Degree	Program	Thesis	Current Position
Jan 2017-	Daniel Bezdek	M. Sc.	CSE	TBD	
Sept 2016-	Po Wu	M.Sc.	CSE	TBD	
Sept 2016-	Gong Chen	PhD	CSE	TBD	
Sept 2015-	Yiming Qian	PhD	CSE	TBD	PhD Student, York
Sept 2014-	Nada el Assal	M.Sc.	CSE	Generative modeling of crowds from optic flow	MSc Student, York
Sept 2013-	Galina Goren	M.A.	Psych	Shape-induced distortions of spatial judgements	MA Student, York
Sept 2011-	Ying Li	M.Sc.	CSE	Edge classification	Maternity leave
Sept 2011-Oct 2014	Alex Yakubovich	M.A.	Math	Extensions of the formlet model of planar shape **(nominated for thesis award**)	Data Scientist, Uken Games
Sept 2010-	Paria Mehrani	Ph.D.	CSE	Single-view reconstruction of smooth objects	PhD Candidate, York
Sept 2008-	Eduardo Corral Soto	Ph.D.	CSE	Single-View 3D Tracking	PhD Candidate, York
Sept 2008-Jul 2011	Charles Mander	M.A.	Psych	Differential modulation of parallel and serial search by exogenous and endogenous attention	
Sept 2008-Nov 2010	Tim Oleskiw	M.Sc.	CSE	Multiscale representations for object boundary shape **(nominated for thesis award**)	PhD Candidate, U. Wash.
Sept 2008-Apr 2011	Ron Tal	M.A.Sc.	CSE	Line-based single-view methods for estimating 3D camera orientation	Senior Software Eng., Walmart Research
Sept 2006-Apr 2015	Vida Movahedi	Ph.D.	CSE	Computational methods and measures for contour grouping **(nominated for thesis award**)	Postdoctoral Fellow, York University and IBM Canada
Sept 2005-Jul 2008	Patrick Denis	M.Sc.	CSE	Efficient edge-based methods for estimating Manhattan frames in urban imagery **(winner of the 2008 York Faculty of Graduate Studies Thesis Award**)	Computer Vision Scientist, TamGam Systems
Sept 2002-Aug 2004	Aaron Clarke	M.A.	Psych	Ecological statistics of natural image contours **(nominated for thesis award**)	Postdoctoral Fellow, École Polytechnique Fédérale de Lausanne
Sept 2002-Aug 2004	Yaniv Morgenstern	M.A.	Psych	Effects of noise on visual detection mechanisms	Postdoctoral Fellow, Duke-NUS

					Graduate Medical School
Sept 2000-Apr 2003	Joseph Amati	M.A.	Psych	The perception of 3D transparent textured surfaces	Senior Manager, Loblaw
Sept 1998-Apr 2008	Lily Velisavljevic	Ph.D.	Psych	Scene perception in a glance	Res. Assoc., University of Toronto
Sept 1998-May 2001	Adam Sachs	M.Sc.	Math	Estimating the psychophysical receptive fields of edge detection mechanisms **(nominated for thesis award)**	Neurosurgeon & Clinical Instructor, Stanford University
May 1997-Feb 2002	Richard Goldberg	M.Sc.	CSE	Image editing in the contour domain **(nominated for thesis award)**	Human Factors Specialist, IBM

Graduate Student Projects

2015-2016	Cyan Kuo	EECS 6400.6	Biologically-inspired algorithms for smooth pursuit	M.A.Sc. student, York University
2001-2002	Kathleen Smith	PSYC 6710.3	The design of psychophysical experiments using MATLAB	Postdoctoral Fellow, University of Sussex Falmer, UK
2001-2002	Marie Arsalidou	PSYC 6710.3	The design of psychophysical experiments using MATLAB	Postdoctoral Fellow, SickKids Hospital, Toronto

International Visiting Graduate Students

Jun-Aug 2011	Qi-Zhi Xu	Computer Science and Engineering	Beihang University, Beijing, China	Postdoctoral Fellow, University of New Brunswick
Jul 2009-Jul 2010	Taeyoon Lee	Computer Science and Engineering	Inha University, Seoul, South Korea	Senior Researcher, Korea Aerospace Research Institute

Postdoctoral Supervision

		Current Position
Jun 2016-	Khalid Yousif	
Dec 2014-Dec 2015	Emilio Almazan	Computer Vision Scientist, Nielsen, Madrid, Spain
Sept 2012-	Ingo Frund	Data scientist, Zalando SE, Berlin, Germany

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Aug 2015		
Nov 2011- *Apr 2013*	Jan Drewes	Postdoctoral Fellow, Centro Interdipartimentale Mente/Cervello, Rovereto, Italy
Jan 2005- *May 2007*	Francisco Estrada	Lecturer, Dept. of Computer and Mathematical Sciences, University of Toronto at Scarborough
Feb 2004- *Aug 2005*	Simon Prince	Senior Lecturer, University College London, UK
Apr 2002- *Oct 2004*	Leigh Johnston	Senior Lecturer, Dept of Biomedical Engineering, University of Melbourne, Australia
Jan 2001- *Apr 2002*	Fadi Dornaika	Charge de Recherche, Institut Geographique National, Paris, France
Aug 1999- *Jul 2001*	Rob Reeves	
May 1999- *Mar 2000*	Manickam Umasuthan	Systems Engineer, MDA Space Missions, Toronto
Aug 1999- *Aug 2000*	Yuquian (Bob) Hou	Senior Research Scientist, Centre for Vision Research, York University

Visiting Sabbaticants

Jul 2009- *Jul 2010*	Taejung Kim	Geomatics Engineering	Inha University, Seoul, South Korea
Jul 2008- *Jul 2009*	Wendy Adams	Psychology	University of Southampton, UK
Jul 2008- *Jul 2009*	Erich Graf	Psychology	University of Southampton, UK
Jul 1999 – *Jun 2000*	Amnon Krupnik	Geomatics Engineering	Technion, Israel

Research Associates

		Current Position
Jun 2008-Mar 2009	Toufiq Paraq	Bioinformatics Specialist, Janelia Farm Research, VA, USA
Sept 2000-	Yuqian (Bob) Hou	Senior Research Scientist, York University
Nov 2000-Jun 2003	Ronen Goldstein	RBC Capital Markets
May 1999-July 2000	Gregory Wu	Technical Staff, Physics Computing Services, University of Toronto

Supervisory and Internal Examining Committees

2015	Leslie Deas	Ph.D.	Psychology	Examining Committee
2015	Junjie Zhang	Ph.D.	Earth and Space Science & Engineering	Examining Committee
2014-Present	Steffen Lindenthal	Ph.D.	Earth and Space Science & Engineering	Supervisory Committee
2014-Present	Kevin Desimone	Ph.D.	Computer Science & Engineering	Examining Committee
2014-2015	Glen Berseth	M.Sc.	Computer Science & Engineering	Examining Committee
2014-Present	Hongming Huai	Ph.D.	Computer Science & Engineering	Supervisory Committee
2014-Present	Hengyue Pan	Ph.D.	Computer Science & Engineering	Supervisory Committee
2013-2015	Matthew Balcarras	M.Sc.	Biology	Supervisory Committee
2013	Michael Veksler	M.Sc.	Biology	Examining Committee
2012	Martin Dimkovski	M.Sc.	Computer Science & Engineering	Examining Committee
2012	Yao Zhang	M.Sc.	Computer Science & Engineering	Supervisory Committee
2012-2014	Ravi Persad	M.Sc.	Earth, Space Science & Engineering	Examining Committee

2011-2012	Adrian Bartlett	M.A.	Psychology	Examining Committee
2011-2012	Wei Gao	Ph.D.	Computer Science	Examining Committee
2011-2013	Larry Wang	Ph.D.	Earth, Space Science & Engineering	Research Evaluation Committee
2011-2015	Chao Luo	Ph.D.	Earth, Space Science & Engineering	Research Evaluation Committee
2009-2013	Inna Tsirlin	Ph.D.	Psychology	Supervisory Committee
2009-2012	Yaniv Morgenstern	Ph.D.	Psychology	Supervisory Committee
2009	Kevin MacKenzie	Ph.D.	Psychology	Supervisory Committee
2009	Muna Shabaneh	M.Sc.	Computer Science	Examining Committee
2008	Nicole Daniels	M.Sc.	Biology	Outside Examiner
2007	Steve Liang	Ph.D.	Earth and Atmospheric Sciences	Supervisory Committee
2006	Olena Borzenko	M.Sc.	Computer Science	Outside Examiner
2006	Gerald Keith	Ph.D.	Psychology	Supervisory Committee
2006	Hoda Dehmeshki	Ph.D.	Computer Science	Supervisory Committee
2006	Helen Karpouzos	M.A.	Psychology	Supervisory Committee
2005	Peter Carr	M.Sc.	Computer Science	Outside Examiner
2005	Wei Xu	M.Sc.	Computer Science	Outside Examiner
2005	Andrejs Vorozcovs	M.Sc.	Computer Science	Outside Examiner
2005	Ji-Young Oh	PhD	Computer Science	Outside Examiner
2004	Gerald Keith	M.A.	Psychology	Supervisory Committee
2003	Michael Vesia	M.Sc.	Kinesiology	Outside Examiner
2002	Steve Prime	M.A.	Psychology	Supervisory Committee
2002	Slava Konovalova	M.Sc.	Biology	Supervisory Committee
2001	Patrick Zhao	M.Sc.	Computer Science	Outside Examiner
2001	Marie Bomba	M.Sc.	Kinesiology & Health Science	Outside Examiner
2001	Ho-Kong Ng	M.Sc.	Computer Science	Outside Examiner
2000	Paul Doerfling	M. A.	Kinesiology & Health Science	Dean's Representative
2000	Michael Smith	Ph.D.	Psychology	Supervisory Committee
1999	Gang Hu	M.Sc.	Biology	Outside Examiner
1999	Melike Ceylon	M.A.	Psychology	Supervisory Committee

1998	Anthony Singhal	M.A.	Kinesiology & Health Science	Outside Examiner
1998	King-Yuen Wong	M.Sc.	Computer Science	Dean's Representative
1998	Eliana Klier	M.Sc.	Biology	Outside Examiner
1997	Benjamin Wong	M.Sc.	Computer Science	Outside Examiner
1997	Michael Smith	M.A.	Psychology	Supervisory Committee
1997	Ann Lindeis	Ph.D.	Psychology	Supervisory Committee

External Examinations

2013 Nakaguro, Y. *Application of quadratic snakes to segmentation of complex shaped objects*, PhD thesis, Sirindhorn International Institute of Technology, Thailand.

2011 Liu, Y. *A Problem in Graphics and Vision via Graph-Cut based Energy Optimization*, PhD thesis, Department of Computer Science, University of Western Ontario

2011 Taylor, C. *On the summation of visual noise*, PhD thesis, Department of Psychology, Neuroscience & Behaviour, McMaster University

2010 Levinshtein, A. *Low and Mid-Level Shape Priors for Image Segmentation*, PhD thesis, Department of Computer Science, University of Toronto

2009 Hussain, Z. *Perceptual Learning of Complex Patterns*, PhD thesis, Department of Psychology, Neuroscience & Behaviour, McMaster University

2008 McCloskey S.P., *Investigating Blur in the Framework of Reverse Projection*, PhD thesis, Department of Computer Science, McGill University

2007 Law A., *Experiments in Object Tracking in Image Sequences*, Master's thesis, Department of Electrical and Computer Engineering, McGill University

Other Teaching-Related Activities

1998 York University Release-Time Teaching Fellowship and Development Grant, for *Integrated disciplinary and computer training in an active learning environment*

SERVICE

Administrative Positions

2001-2006	Coordinator, Brain, Behaviour and Cognitive Sciences, Graduate Programme in Psychology

Committees

Departmental

2015-2016	Member, EECS PhD Proposal Committee, Department of Electrical Engineering and Computer Science
2015-2016	Member, Tenure & Promotion File Preparation Committee, Department of Electrical Engineering and Computer Science
2014-2016	Member, Tenure & Promotion Committee, Department of Electrical Engineering and Computer Science
2014-2016	Member, Graduate Executive Committee, Department of Electrical Engineering and Computer Science (Fall Term)
2014-2015	Chair, Hiring Committee, Canada Research Chair Tier II in Digital Media, Department of Electrical Engineering and Computer Science
2013-2015	Co-Chair, Graduate ECE Proposal, Department of Electrical Engineering and Computer Science
2012-2015	Member, Graduate Computer Engineering Committee, Department of Electrical Engineering and Computer Science
2013-2014	Chair, Tenure & Promotion File Preparation Committee, Department of Electrical Engineering and Computer Science
2010-2014	Member, Website Committee, Department of Computer Science and Engineering
2010-2014	Member, Digital Media Program Committee, Department of Computer Science and Engineering
2012-2013	Member, Software Engineering Search Committee, Department of Electrical Engineering and Computer Science
2010-2011	Member, Computer Graphics Faculty Search Committee, Department of Computer Science and Engineering
2008-2009	Chair, Graduate Computer Engineering Committee, Department of Computer Science and Engineering
2007-2008	Member, Tenure File Preparation Committee for Richard Murray, Department of Psychology
2006-2009	Member, Computer Engineering Program Committee, Department of Computer Science and Engineering
2006-2008	Member, Petitions Committee, Department of Computer Science and Engineering
2004-2005	Member, Tenure and Promotion Committee, Department of Psychology
2004-2005	Chair, Brain, Behaviour and Cognitive Sciences Search Committee, Department of Psychology
2003-2006	Member, Graduate Executive Committee, Department of Psychology

2003-2006	Member, Research Awards Committee, Department of Psychology
1999-2005	Member, Computing Committee, Department of Psychology
1998-2001	Member, Executive Committee, Department of Psychology
1999-2000	Member, Departmental Chair Search Committee, Department of Psychology
1999-2000	Member, Recruiting Committee, Tenure-Track Position in Research Methods, Department of Psychology
1998	Member, Recruiting Committee, Tenure-Track Position in Clinical Neurobiology, Department of Psychology
1998	Member, Sub-Committee on Psychology Reports, Department of Psychology

Research Centre

2015-2016	Member, Leadership Team, Canada First Research Excellence Fund Initiative
2014-Present	Member, Executive Committee, Centre for Information Visualization and Data-Driven Design
2011-2015	Member, Steering Committee, Centre for Vision Research (Elected)
2011-2013	Chair, Centre for Vision Research CREATE Programme Scientific Committee
2003-2006	Member, Steering Committee, Centre for Vision Research
1999-2000	Member, Kirshner Award Committee

Faculty

2011-2012	Chair, School of Engineering Faculty Search Committee (Two Full Professor Leadership positions and one tenure-track position)
2007-2008	Member and Affirmative Action Representative, Geomatics Engineering Faculty Search Committee, Faculty of Science and Engineering
2005-2006	Member, Engineering Faculty Search Committee, Faculty of Science and Engineering
2000-2001	Member, Engineering Design Faculty Search Committee, Faculty of Pure and Applied Science
1999-2000	Member, Information Technology Council, Faculty of Arts
1997-1998	Member, Committee on Examinations and Academic Standards, Faculty of Pure and Applied Science

University Level

2015-2016	Member, Strategic Projects Opportunity Review Team
2013-2014	Member, Senate Executive Committee
2011-2014	Faculty of Health Senator (Elected)
2008-2009	OGS Ontario Graduate Scholarship Panel

Activities

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Departmental

2013-2014	Rated NSERC CGS-M Applications, Department of Psychology
2013-2014	Adjudicated nominations for the Norman S. Endler Research Fellowship for the Brain, Behaviour and Cognitive Sciences area
2012-2013	Served as faculty mentor for new faculty member (Sebastian Maglerowski), Department of Computer Science & Engineering
2011-2012	Teaching evaluation for Amir Asif's application for promotion to Full Professor, Department of Computer Science & Engineering
2010-2011	Rated Ontario Graduate Scholarship applications (Master's), Department of Psychology
2008-2009	Teaching evaluation for Jeff Edmond's application for promotion to Full Professor, Department of Computer Science & Engineering
2007-2008	Prepared nomination of undergraduate student Hassan Masoom for the Murray G. Ross Award, Department of Computer Science & Engineering
2007-2008	Rated Ontario Graduate Scholarships applications (Master's), Department of Psychology
2006-2007	Organized first Brain, Behaviour and Cognitive Sciences Programme Recruiting Day, Department of Psychology
2006-2007	Candidacy file preparation coordinator for Richard Murray, Department of Psychology
2004-2005	Served as faculty mentor of new faculty member (Richard Murray), Department of Psychology
2003-2004	Developed advertising poster for Brain, Behaviour & Cognitive Sciences area of Psychology Department
2001-2002	Evaluated teaching for Department of Psychology Junior Tenure and Promotion Committee, Department of Psychology
1999-2000	Helped to draft portions of the Departmental Plan on technology-enhanced learning and new appointments, Department of Psychology
1999-2000	Prepared submission for Faculty of Pure and Applied Science Strategic Academic Initiatives Fund, Department of Psychology
1998-1999	Rated undergraduate student applications for Ontario Graduate Scholarships, Department of Psychology
1997-2000	Advised York B.Sc. students majoring in Psychology, Department of Psychology
1997	Rated graduate student applications for Ontario Graduate Scholarships, Department of Psychology

Research Centre

2014-2015	Organized and chaired 3rd Bootcamp for the York CREATE Training Program in Vision Science and Applications.
2013-2014	Organized and chaired 2nd York University CVR Research Retreat
2013-2014	Organized field trip to Ottawa for York CREATE Training Program in Vision Science and Applications.

2012-2013	Organized and chaired 1st Bootcamp for the York CREATE Training Program in Vision Science and Applications.
2012-2013	Organized and chaired 1st York University CVR Research Retreat
2010-2014	Manager of Centre for Vision Research Website
2007-2014	Lecturer, Centre for Vision Research Vision Science Summer School
2007-2008	Led the design and development of a new brochure and website for the Centre for Vision Research
1998	Designed and distributed Centre for Vision Research poster

Faculty

2014-2015	Served as NSERC Discovery Grant Faculty Mentor for the Lassonde School of Engineering
2009-2010	Drafted Proposal for new Organized Research Unit: FIRE (Focus on Innovation in Research and Innovation) (With R. Hornsey.)
2006-2007	Participated in CEAB Review of York Engineering Programme
2006-2007	Helped review and revamp General Education Requirements for York Engineering Programme
1999-2000	Coordinated between Psychology and Mathematics Departments and drafted proposal for new joint faculty position in Neural Computation.
1997-2000	Participated in calling campaign to attract top high-school students to York University

University

1997	Represented York University at the Ontario University Fair

COMMUNITY SERVICE

2006-09	Member, Board of Directors, Howard Park Children's Centre
2008-09	Coach, West-End United Soccer Club

Last updated: April, 2016