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## Education

- 2005 – Present **Doctor of Philosophy**, *University of British Columbia*, Vancouver, Canada.  
Department of Computer Science
- May 2005 **Master of Computer Science**, *Carleton University*, Ottawa, Canada.  
Department of Computer Science
- May 2003 **Bachelor of Computer Science**, *Carleton University*, Ottawa, Canada.  
Department of Computer Science. Highest Honours, Software & Computing, Co-op

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## Journal and Conference Publications

- Procams 2009 **Synchronization and Rolling Shutter Compensation for Consumer Video Camera Arrays**, *D. Bradley, B. Atcheson, I. Ihrke, W. Heidrich*, 2009, International Workshop on Projector-Camera Systems.  
Miami, USA
- Eurographics 2009 **Wrinkling Captured Garments Using Space-Time Data-Driven Deformation**, *T. Popa, Q. Zhou, D. Bradley, V. Kraevoy, H. Fu, A. Sheffer, W. Heidrich*, 2009, Computer Graphics Forum. Vol. 28, No. 2.  
(Proceedings of Eurographics, Munich, Germany)
- MVA 2009 **Augmented Reality on Cloth with Realistic Illumination**, *D. Bradley, G. Roth, P. Bose*, 2009, Machine Vision and Applications.  
Vol. 20, No. 2: 85-92. (Submitted Sept. 2005 / Published online Nov. 2007)
- SIGGRAPH Asia 2008 **Time-resolved 3D Capture of Non-stationary Gas Flows**, *B. Atcheson, I. Ihrke, W. Heidrich, A. Tevs, D. Bradley, M. Magnor, H.-P. Seidel*, 2008, ACM Trans. on Graphics.  
Vol. 27, No. 5, Article 132.  
(Proceedings of SIGGRAPH Asia, Singapore)
- SIGGRAPH 2008 **Markerless Garment Capture**, *D. Bradley, T. Popa, A. Sheffer, W. Heidrich, T. Boubekur*, 2008, ACM Trans. on Graphics. Vol. 27, No. 3, Article 99.  
(Proceedings of SIGGRAPH, Los Angeles, USA)
- CVPR 2008 **Accurate Multi-View Reconstruction Using Robust Binocular Stereo and Surface Meshing**, *D. Bradley, T. Boubekur, W. Heidrich*, 2008, IEEE Computer Vision and Pattern Recognition.  
Anchorage, USA
- JGT 2007 **Adaptive Thresholding Using the Integral Image**, *D. Bradley, G. Roth*, 2007, ACM Journal of Graphics Tools.  
Vol. 12, No. 2: 13-21
- EGSR 2006 **Tomographic Reconstruction of Transparent Objects**, *B. Trifonov, D. Bradley, W. Heidrich*, 2006, Eurographics Symposium on Rendering (EGSR).  
Nicosia, Cyprus
- HAVE 2005 **Image-based Navigation in Real Environments Using Panoramas**, *D. Bradley, A. Brunton, M. Fiala, G. Roth*, 2005, IEEE International Workshop on Haptic Audio Visual Environments and their Applications (HAVE).  
Ottawa, Canada

- ACE 2005 **Natural Interaction with Virtual Objects Using Vision-Based Six DOF Sphere Tracking**, *D. Bradley, G. Roth*, 2005, Advances in Computer Entertainment Technology (ACE). Valencia, Spain

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## Other Referred Contributions

- SIGGRAPH 2007 **Imaging and 3D Tomographic Reconstruction of Time-varying, Inhomogeneous Refractive Index Fields**, *B. Atcheson, I. Ihrke, D. Bradley, W. Heidrich, M. Magnor, H.-P. Seidel*, 2007, SIGGRAPH Sketch. San Diego, USA
- SIGGRAPH 2006 **Tomographic Reconstruction of Transparent Objects**, *B. Trifonov, D. Bradley, W. Heidrich*, 2006, SIGGRAPH Sketch. Boston, USA
- GI 2005 **Augmented Clothing**, *D. Bradley, G. Roth, P. Bose*, 2005, Graphics Interface Posters. Victoria, Canada
- GI 2005 **Six Degree-of-Freedom Sphere Tracking for 3D Interaction**, *D. Bradley, G. Roth*, 2005, Graphics Interface Posters. Victoria, Canada
- ISMAR 2005 **Distributed Table-Top AR with 3D Input**, *D. Bradley, M. Fiala*, 2005, Demo at the International Symposium on Mixed and Augmented Reality. Vienna, Austria
- MTCVW 2005 **Panorama visualization for image-based rendition of remote environments**, *D. Bradley, A. Brunton*, 2005, Demo at the Montreal-Toronto Computer Vision Workshop. Montreal, Canada
- Vis 2004 **Visualizing botanical trees over four seasons**, *D. Bradley*, 2004, IEEE Visualization. Austin, USA

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## Theses

- MCS 2005 **Augmented Reality on Cloth with Realistic Illumination**, *Masters Thesis*, Carleton University, 2005.  
Supervised by Gerhard Roth & Prosenjit Bose
- BCS 2003 **Evaluation of Real-Time Continuous Terrain Level of Detail Algorithms**, *Undergraduate Honours Project*, Carleton University, 2003.  
Supervised by Mark Lanthier

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## Invited Talks

- April 2009 **Multi-view Geometric Reconstruction of Detailed Garment Motion**, *INRIA*, Grenoble, France, (with Tiberiu Popa).  
April 7, 2009
- March 2009 **Multi-view Reconstruction of Detailed Garment Motion**, *TU Darmstadt*, Darmstadt, Germany.  
March 27, 2009
- March 2009 **Multi-view Reconstruction of Detailed Garment Motion**, *Leibniz Universität*, Hannover, Germany.  
March 25, 2009
- March 2009 **Multi-view Reconstruction of Detailed Garment Motion**, *TU Braunschweig*, Braunschweig, Germany.  
March 24, 2009

July 2006 **Tomographic Reconstruction of Transparent Objects & Projects in Augmented Reality**, *INRIA*, Bordeaux, France.  
July 6, 2006

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## Awards

- 2006 – present **NSERC CGS-D3 Scholarship**, \$35,000 per year for 3 years, PhD, University of British Columbia.
- 2005 – present **PhD Tuition Award**, up to \$7,000 per year, PhD, University of British Columbia.
- 2005 **Senate Medal for Outstanding Academic Achievement**, MCS, Carleton University.
- 2004 – 2005 **NSERC CGS-M Scholarship**, \$17,500, MCS, Carleton University.
- 2003 – 2005 **Departmental Scholarship & TA**, \$10,500 per year, MCS, Carleton University.
- 2003 – 2005 **Domestic Tuition Scholarship**, \$3,000 per year, MCS, Carleton University.
- 2003 **Dean of Graduate Studies Scholarship**, \$2,000, MCS, Carleton University.
- 2003 **Senate Medal for Outstanding Academic Achievement**, BCS, Carleton University.
- 1999 **Cognos Scholarship**, \$2,000, BCS, Carleton University.
- 1999 **Goldie Wilkinson Scholarship**, \$450, BCS, Carleton University.
- 1998 – 2003 **Entrance Scholarship**, \$3,500 per year for 4 years, BCS, Carleton University.
- 1998 **Medal of the Governor General of Canada**, Smiths Falls District Collegiate Institute.
- 1992 & 1996 **Chief Scout's Award and Queen's Venturer Award**, for leadership, community service, and outdoor skills.

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## Work Experience

- September 2005 – April 2006 **Teaching Assistant**, *University of British Columbia*, Vancouver, BC, Canada.  
Performed marking and taught students in a group and on an individual basis in a computer lab. Courses include: 4th year Computer Animation and 3rd year Computer Graphics.
- May 2005 – August 2005 **Researcher**, *University of Ottawa (NAVIRE Project)*, Ottawa, ON, Canada.  
Developed a real-time image panorama viewer and navigation system using image-based rendering. Performed demos of the viewer to industry partners and other researchers, and published the results.
- February 2004 – May 2004 & June 2005 **Visiting Worker on Contract**, *National Research Council of Canada*, Ottawa, ON, Canada.  
Implemented functional updates in C to a voxel-based 3D mesh reconstruction application. Tested reconstruction improvements on raw 3D data points captured from a stereo camera.
- September 2003 – April 2005 **Teaching Assistant**, *Carleton University*, Ottawa, ON, Canada.  
Marked assignments and taught students on an individual basis. Courses include: 1st year Java Programming, 4th year Multimedia, 4th year Computer Graphics.
- August 2001 – August 2003 (Periodically) **Associate Software Engineer**, *Cognos Incorporated (Cognos Visualizer Team)*, Ottawa, ON, Canada.  
Implemented software 2D and 3D graphics engines in C++ for Cognos Visualizer including enhanced graphic effects and optimizations. Implemented general new features for Visualizer in C++ and Java, for Windows and Unix. Co-designed and implemented a web-based prototype for creating charts using live data and a freeform canvas layout using ASP, JavaScript and HTML.
- May 2002 – August 2002 **Software Developer**, *Cognos Incorporated (Cognos Business Modeling Tools Team)*, Ottawa, ON, Canada.  
Developed Windows dialogs for Cognos Business Modeling Tools using C++ and MFC. Maintained (in XML) and tested database functions for Oracle, DB2, MS Access & SQL Server.

May 2000 – **Software Developer**, *Corel Corporation*, Ottawa, ON, Canada.  
December 2000 Implemented new features in C++ for WordPerfect 10 to improve tables and document navigation.  
Fixed bugs for WordPerfect 9 SP4.

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## Academic Services

Tertiary Reviewer

**ACM Transactions on Graphics.**  
**IEEE Transactions on Visualization and Computer Graphics.**  
**Journal of Zhejiang University-SCIENCE A.**  
**SIGGRAPH**, 2007–2008.  
**SIGGRAPH ASIA**, 2008.  
**Eurographics**, 2006–2007, 2009–2010.  
**Graphics Interface**, 2008–2009.  
**Pacific Graphics**, 2006.  
**Eurographics Symposium on Rendering**, 2006.  
**Computer Graphics International**, 2006.  
**International Symposium on Mixed and Augmented Reality**, 2004–2005.

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## Technical Skills

OS:	Linux, Windows	programming:	C/C++, OpenGL, OpenCV
video production:	Adobe Premiere, iMovie, 3DS Max	additional:	L <sup>A</sup> T <sub>E</sub> X, Shell Scripting