

## Scott A. King

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Fall 2017  
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## Education

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### The Ohio State University

- *Doctor of Philosophy*, Computer and Information Science, June 2001  
Dissertation: *A Facial Model and Animation Techniques for Animated Speech*
- *Master of Science*, Computer and Information Science, March 1994

### Utah State University

- *Bachelor of Science*, major in Computer Science minor in Mathematics and History, 1988

## Positions

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**Texas A&M University-Corpus Christi**, Department of Computing Sciences, (School of Engineering & Computing Science split into two departments) Corpus Christi, Texas.

- Chair, Aug 2015 - *present*

**Texas A&M University-Corpus Christi**, School of Engineering & Computing Sciences (replaced Department of Computing Sciences), Corpus Christi, Texas.

- Geospatial Computing Sciences Doctoral Program Coordinator, Nov 2014 - *present*
- Computer Science Program Coordinator, June 2013 - Aug, 2015.

**Texas A&M University-Corpus Christi**, Department of Computing Sciences, Corpus Christi, Texas.

- Graduate Program Coordinator, June 2009 - June 2013
- Associate Professor, Sep 2007 - *present*
- Assistant Professor, Aug 2004 - Aug 2007

**NASA Johnson Space Center**, Houston, Texas

- Summer Faculty Fellow, May-June 2006

**University of Otago**, Computer Science Department, Dunedin, New Zealand.

- Lecturer (equivalent to assistant professor in the U.S.), Jan 2002 - Jul 2004

**The Ohio State University**, Department of Computer and Information Science, Columbus, OH

- Senior Lecturer, Jun 2001 - Dec 2001
- Lecturer, Sep 2000 Jun 2001
- Graduate Research Assistant, 1996-2000
- Graduate Administrative Assistant, 1992-1994, 1996-1997, 1998-2000

**Texas Instruments** Software Research Laboratory, Dallas, TX

- Summer Intern, 1995-1997

**Ohio Supercomputer Center**, Columbus, OH

- Graduate Research Assistant, 1995-1996

**Harris Methodist**, Ft Worth, TX

- Programmer/Analyst, 1991-1992, 1994

**General Dynamics**, Ft Worth, TX

- Software Engineer, 1989-1991

**Tandy Corp**, Ft Worth, TX

- Programmer, 1988-1989

## Awards

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- NASA Summer Faculty Fellow, May-June 2006

## Publications

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### Journals (peer-reviewed)

- 1 Rebecca Hamner, Jason Selwyn, Evan Krell, Scott A King, Bird Christopher “Modeling next-generation sequencer sampling error in pooled population samples dramatically reduces false positives in genetic structure tests”, *Molecular Ecology Resources*, under review.
- 2 Paul A. Montagna, Alexey L. Sadvovskii, Scott A. King, Kevin K. Nelson, Terence A. Palmer, and Kenneth H. Dunton “Modeling the effect of water level on the Nueces Delta marsh community”, *Wetlands Ecology and Management*, 25(6), pp 731–742, 2017, doi:10.1007/s11273-017-9547-x.
- 3 Ortiz, J. M. and King, S. A. “An Interactive Visualization Tool to Explore the Geoid. ”, *McNair Scholars Research Journal*, Volume II, Summer 2009-Summer 2010, pp 105-109, 2011.
- 4 Phyllis Tedford and Scott King, “Using a Summer Camp to Attract Computer Science Majors”, *Journal of Computing Sciences in Colleges*, Vol. 24, No. 4, pp 97–103, April 2009.
- 5 Rafic Bachnak and Scott A. King, “Position tracking and flaw visualization in conductive materials”, *WSEAS TRANSACTIONS on SYSTEMS*, Vol. 7, No. 9, pp 804–813, 2008.
- 6 Rita A. Sperry, Scott A. King and John D. Fernandez “Is a 3-D image necessary to determine eye gaze?”, *J. Comput. Small Coll.*, Vol. 22, No. 4, pp 198–204, Apr, 2007, 27-28 Apr, Wichita Falls, TX, USA, 2007.
- 7 Alexis Angelidis, Marie-Paule Cani, Geoff Wyvill and Scott King, “Sweepers: Swept Deformation Defined by Gesture”, *Graphical Models*, Vol. 68, No. 1, Jan, pp 2–14, 2006.
- 8 Scott A. King and Richard E. Parent, “Creating Speech-Synchronized Animation”, *IEEE Transactions on Visualization and Computer Graphics*, Vol. 11, No. 3, May/June, pp 341–352 2005.
- 9 Scott A. King and Richard E. Parent, “Animating Song”, *Computer Animation and Virtual Worlds*, 15(1), pp 53-61, March 2004.
- 10 Scott A. King and Richard E. Parent, “A 3D Parametric Tongue Model for Animated Speech”, *Journal of Visualization and Computer Animation*, 12 (3), pp. 107–115, 2001.

### Book Chapters (peer-reviewed)

- 11 Scott A. King “Animating Speech in Games”, *Lecture Notes in Computer Science, Motion in Games 2008*, edited by Arjan Egges, Arno Kamphuis, Mark Overmars, Springer, pp 234-245, 2008.

- 12 Scott A. King, Richard E. Parent and Barbara Olsafsky, “A Muscle-Based 3D Parametric Lip Model for Speech-Synchronized Facial Animation”, in *Deformable Avatars*, edited by Nadia Magnenat-Thalmann and Daniel Thalmann, Kluwer Academic, Boston, pp. 12–23, 2001.
- 13 Scott A. King, Roger A. Crawfis and Wayland Reid, “Fast Volume Rendering and Animation of Amorphous Phenomena”, chapter 14, pp 229–242, in *Volume Graphics*, Springer, London, 2000.

### Books - Editing (contributed)

- 14 *Proceedings of New Zealand Game Developers Conference Fuse2004*, Edited by Scott A. King, 26-29 June, Dunedin, New Zealand, 2004.

### Conference Proceedings (peer-reviewed)

- 15 Vinay D. Pinnaka, Scott A. King, Ajak K. Katangur “SLIP: A Cost-effective Infrastructure for a Smart Environment”, *Proceedings of The 16th IEEE International Conference on Ubiquitous Computing and Communications* 12-15 December, Guanzhou, China, 2017 to appear. short paper 26/75 accepted, 34.7% .
- 16 Dat Do, Scott A. King, Alaa Sheta, Jiaqi Hu “Implementation of an Integrated Ambient Intelligence System”, *Proceedings of The 16th IEEE International Conference on Ubiquitous Computing and Communications* 12-15 December, Guanzhou, China, 2017 to appear. full paper 21/75 accepted, 28.0% .
- 17 Gaowei Chen, Scott A. King, Michael Scherger, “Robot Remote Control Using Bluetooth and a Smartphone Augmented System ”, *Informatics in Control, Automation and Robotics, Volume 2*, edited by Dehuai Yang Lecture Notes in Electrical Engineering, Vol 133 pp 453-460, Springer-Verlag Berlin Heidelberg 2011 Full paper (219/850 accepted, 25.8%.
- 18 Long K. Huynh, Scott A. King, “Low-Cost Solutions For Making Hands-Free Video Games”, *Proceedings of the IADIS International Conference Game and Entertainment Technologies 2011*, edited by Katherine Blashki, 22-24 July, Rome, Italy, pp 51-58, 2011 Full paper (11/56 accepted, 19.6%.
- 19 Anh Tuan Do, Scott A. King, “Creating Emotional Speech for Conversational Agents”, *2011 Workshop on Digital Media and Digital Content Management*, 15-16 May, Hangzhou, China, pp. 107-110, 2011. doi: 10.1109/DMDCM.2011.56

- 20 Scott A. King “Animating Speech in Games”, *Proceedings of Motion in Games 2008 (MIG '08)*, 14-17 June, Utrecht, The Netherlands, pp. 223–232, 2008.
- 21 Ray Bachnak, Scott King “Non-Destructive Evaluation and Position Tracking of Flaws in Conductive Materials”, *Proceedings of the 12th Int. Conf. on Systems*, 13-18 April, Cancun, Mexico, ISBN: 978-960-6766-83-1, pp. 68–73, 2008.
- 22 Ray Bachnak, Scott King “Non-Destructive Evaluation and Flaw Visualization Using an Eddy Current Probe”, *Proceedings of the Third International Conference on Systems*, 22-24 Jul, ISBN:978-0-7695-3105-2, pp. 134–139, 2008. ★ **Best Paper Award**
- 23 Ray Bachnak, Scott A. King, Will Maeger and Tien Nguyen “Eddy Current System for Material Inspection and Flaw Visualization”, *Proceedings of 6th WSEAS Int. Conf on Applications of Electrical Engineering (AEE '07)*, 27-29 May, Istanbul, Turkey, ISBN: 978-960-8457-71-3, pp. 28–33, 2007.
- 24 Rita Sperry and Scott A. King and John D. Fernandez “Is a 3-D Image Necessary to Determine Eye Gaze?”, *Proceedings of CCSC:SC 2007*, 27-28 Apr, Wichita Falls, TX, USA, 2007.
- 25 Zhuming Lam and Scott A. King, “Simulating tree growth based on internal and environmental factors”, *Proceedings of GRAPHITE 2005*, 29 Nov - 2 Dec, Dunedin, New Zealand, pp 99-107, 2005.
- 26 Jeremy Burgess, Geoff Wyvill and Scott A. King, “A System for Real-Time Watercolour Rendering”, *Proceedings of CGI 2005*, Stony Brook, NY, USA, June 22-24, 2005.
- 27 Andrew Wood, Brendan McCane, and Scott A. King, “Ray Tracing Arbitrary Objects on the GPU”, *IVCNZ 2004*, 21-23 Nov, Akaroa, New Zealand, pp 327–332, 2004.
- 28 Jeremy Burgess and Scott A. King, “A System for Watercolour Rendering”, *IVCNZ 2004*, 21-23 Nov, Akaroa, New Zealand, pp 357–362, 2004.
- 29 Alexis Angelidis, Marie-Paule Cani, Geoff Wyvill and Scott King, “Swirling-Sweepers: Constant-Volume Modeling”, Pacific Graphics 2004, Seoul, Korea, Oct 6-8, 2004. ★ **Best Paper Award**
- 30 Scott A. King, “Real-Time Facial Animation and Speech Synchronization Techniques Applicable to 3D Games”, *New Zealand Game Developers Conference Fuse2004*, 26-29 June, Dunedin, New Zealand, pp. 94–102, 2004.
- 31 Will Baker and Scott A. King, “Interactive Modelling of Hair with Texture Maps”, *IVCNZ 2003*, 26-28 Nov, Palmerston North, New Zealand, pp 84–89, 2003.
- 32 Z. Lam and S. A. King, “Animation of Tree Development”, *IVCNZ 2003*, 26-28 Nov, Palmerston North, NZ, pp 297–302, 2003.
- 33 Scott A. King, Alistair Knott, and Brendan McCane, “Language-driven nonverbal communication in a bilingual conversational agent”, *Proceedings of Computer Animation and Social Agents 2003*, 7-9 May, Rutgers University, pp 17-22, 2003.
- 34 M.S. Lorenzo, J.D. Edge, S.A. King and S. Maddock, “Use and Re-use of Facial Motion Capture Data”, *Proceedings of Vision, Video, and Graphics 2003*, Edited by P. Hall and P. Willis, 10-11 July, University of Bath, pp. 135-142, 2003
- 35 Scott A. King and Richard E. Parent, “Lip Synchronization for Song”, *Proceedings of Computer Animation 2002*, 19–21 June, Geneva Switzerland, pp. 233–239, 2002. (Rate Long 15 Short 18/ 48 15/48)
- 36 Rick Parent, Scott King and Osamu Fujimura, “Issues with lip-synch animation: can you read my lips?”, *Computer Animation 2002*, 19–21 June, Geneva, pp. 3–10, 2002. (Rate Long 15 Short 18/ 48 15/48)
- 37 Scott A. King and Richard E. Parent, “A Parametric Tongue Model for Animated Speech”, *Computer Animation and Simulation 2000: Proceedings of the Eurographics Workshop*, Interlaken, Switzerland, August 21–22, pp 3–13, 2000.
- 38 Scott A. King, Richard E. Parent, and Barbara Olsafsky, “An Anatomically-Based 3D Parametric Lip Model to Support Facial Animation and Synchronized Speech”, *Proceedings of Deform 2000*, 29–30 Nov, Geneva, Switzerland, pp. 7–19, 2000.
- 39 Scott A. King, Roger A. Crawfis and Wayland Reid, “Fast Animation of Amorphous and Gaseous Phenomena”, *Volume Graphics '99*, Swansea, Wales, pp 333–346, March 1999.
- 40 R. Yagel, D. Stredney, G.J. Wiet, P. Schmalbrock, L. Rosenberg, D.J. Sessanna, Y. Kurzion, and S. King, “Multisensory Platform for Surgical Simulation” IEEE Virtual Reality Annual International Symposium 1996 - VRAIS'96 Santa Clara CA, March 1996, pp. 72-78.
- Other (peer-reviewed)**
- 41 Alexis Angelidis, Marie-Paule Cani, Geoff Wyvill and Scott King, “Swirling-Sweepers: Constant-Volume Modeling”, *ACM SIGGRAPH 2004 Sketches*, isbn 1-59593-896-2, p 40, 2004.
- 42 Ortiz, J. M. and King, S. A. “An Interactive Visualization Tool to Explore the Geoid. ”, *Proceedings of 18th Annual Ronald E. McNair California*

*Scholars Symposium*, Berkeley, California, p 167, 2010.

### Conference Proceedings (Posters)

- 43 Ram Kumar Vangala, Anh Tuan Do, Scott A. King, “Nueces Bay Environmental Data Visualization”, *The 7th Annual Texas A&M University System Pathways Student Research Symposium*, Texas A&M International University, pp 23, Nov 13-14, 2009. ★ **2nd Place - Computer Science**
- 44 Ortiz, J. M. and King, S. A. “An Interactive Visualization Tool to Explore the Geoid. ”, Texas A&M University-Corpus Christi Tenth Annual Undergraduate Research Symposium (Corpus Christi, Texas). 2010

### Technical Reports (contributed)

- 45 Scott A. King, *A Facial Model and Animation Techniques for Animated Speech*, Ph.D. Thesis,

Ohio State University, 2001.

- 46 Scott A. King and Richard E. Parent, “TalkingHead: A Text-to-Audiovisual-Speech System”, OSU-CISRC-2/80-TR05, Computer and Information Science, Ohio State University, Columbus, OH, Feb 2000.

### Other (non peer-reviewed)

1. P.A. Montagna, A.L. Sadoski, S. King, K.C. Nelson and T. Palmer. *Nueces Delta Ecological Modeling for Nueces River and Tributaries Texas*. Final Report to U.S. Army Corps of Engineers for Contract Number: W9126G-09-T0076. Harte Research Institute for Gulf of Mexico Studies, Texas A&M University at Corpus Christi, Corpus Christi, Texas. 22 pp., 2012

### Grants

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- PI, #1723165, “Collaborative Research: The Texas A&M System AGEF Alliance: A Model to Advance Historically Underrepresented Minorities in the STEM Professoriate”, NSF, **\$516,072**, Sep 1, 2017- Aug, 31, 2022, with Richard Coffin and Mehrube Mehrubeoglu. Alliance with TAMU, PVAMU, TAMUK Total Amount, **\$2,816,700**
- Co-PI, “Real Time Heterogeneous Product Counting on Amazon Bin Image Dataset based on Deep Learning”, Amazon, **\$100,000**, January 1, 2017- Dec, 31, 2017, with Maryam Rahmonfar (PI)
- Co-PI, #DUE-1458096, “Supporting Undergraduates for Careers in Computing and Engineering with Scholarships and Supervision.”, NSF, **\$609,857**, March 1, 2015- Aug, 31, 2020, with Dulal Kar (PI) and Dugan Um
- PI (transfer), #ESP-1153961, “Expanding the STEM Pool with Transfer Scholarships”, NSF, **\$597,290**, May 15, 2012-April 30, 2017 (extended to April 20, 2018) , with John Fernandez (original PI), Mehrube Mehrubeoglu, Patricia Hill, AJeannie Gage, and Krystal Escobar.
- PI (transfer), #DUE-0806780, “Attacking the Gathering Storm in Computer Sciences and Mathematics (STORM)Attacking the Gathering Storm in Computer Sciences and Mathematics (STORM).”, NSF, **\$599,599**, September 1, 2008 - August 31, 2015, with John Fernandez (original PI) Jose H. Giraldo, Patricia G. Hill, Jeannie T. Gage, Krystal Escobar
- Co-PI, “Development of New Models of the Local Geoid along the Coast of the Gulf of Mexico”, Texas Research Development Fund, Texas A&M University-Corpus Christi, **\$28,675**, Sep 1, 2008, Aug 31, 2009.
- PI, “Upgrade for graphics Lab”, **\$28000**, Texas A&M University-Corpus ChristiHEAF Funds, 2007
- PI, #2208WSW003, “Summer Merit Program”, Texas Workforce Commission, **\$43,240**, April 15, 2008, September 30, 2008.
- PI, TWC# 2208WSW001, “Initiatives to Increase Participation in Computer Science and Engineering”, Texas Youth in Technology Grant Program, Texas Workforce Commission and Texas Engineering and Technical Consortium, **\$82,200**, 1 Jan 2008 - 31 Aug 2009.

- PI, "Visualization and Modeling of the Environmental Phenomena in Bays and Estuaries", Texas Research Development Funds, TAMU-CC, **\$35,425**, 1 Nov 2007 - 31 Aug 2008.
- Co-PI, #CNS-0708573, "CRI: IAD - Computing Infrastructure for Research-Based Learning (CIRBL)", NSF, **\$650,000**, 1 Sep 2007- 31 Aug 2010.
- Co-PI, #NNJ06HH41G "Quantifying Digital Imagery and Position Tracking for Non-Destructive Evaluation Tools for Use on Space Station Structure", NASA, **\$100,000**, 1 Sep 2006 - 31 Aug 2008.
- PI, "Modeling, Simulation, and Visualization of the Environmental Phenomena in the Bays and Estuaries of the Gulf of Mexico", **\$40,400** Texas Excellence Fund TAMU-CC, Alex Sadovski. Oct 2007 - 31 Aug 2008.
- PI, "Visual Prosody for Improved Facial Animation", Texas Research Development Funds, TAMU-CC, **\$35,200**, 1 Sep 2006 - 31 Aug 2007.
- PI, "Motion Capture of Prosodic Information for Speech Synchronization", University Research Enhancement Program, TAMU-CC, **\$11,190**, 1 Sep 2005 - 31 Aug 2006.
- PI, "Creating a Conversational Agent for Better Human Computer Interaction", Texas Excellence Fund, TAMU-CC, **\$16,057**, 1 Feb 2005 - 31 Aug 2005.
- Texas Excellence Fund, New Faculty Startup, **\$4000**, 1 Feb 2005 - 31 Aug 2005.
- Equipment grant from ATI research, **\$1950**, Dec, 2004.
- NSF #EIA-0330822, "MII: Improving the Pipeline in Applied Computer Science", **\$1,349,999**, Co-PI, (Steve Dannelly PI), 9/1/03 - 8/31/08.
- Equipment grant from nVIDIA, **\$3000**, June, 2003.
- **\$3000NZ** for New Zealand Foundation for Research, Science and Technology, New Economy Research Fund AUT-X0201, 2003, N. Kasabov P.I.
- Travel grant for IVCNZ '03, University of Otago, Dept of Computer Science, **\$1000NZ**, 2003
- Travel grant for SIGGRAPH 2003, University of Otago, **\$3500NZ**, 2003
- Travel grant for CA 2002, University of Otago, Computer Science Dept, **\$3000NZ**, 2002
- Travel grant for SIGGRAPH 2002, University of Otago, **\$3500NZ**, 2002
- Support grant, (P.I. Richard Parent), Texas Instruments, "Visual Communications", **\$24,000**, 1997-98, this grant was for support of my research.
- Support grant, (P.I. Richard Parent), Texas Instruments, "Visual Communications", **\$25,000**, 1996-97, this grant was for support of my research.

## Courses Taught

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- COSC 1435, Introduction to Problem Solving with Computers I Texas A&M - Corpus Christi, 2013,
- COSC 1436, Introduction to Problem Solving with Computers II Texas A&M - Corpus Christi, 2008, 2009,
- COSC 3325, Game Programming, Texas A&M University-Corpus Christi, 2009,2011, 2014
- COSC 3346, Computer System Software, Texas A&M University-Corpus Christi, 2004, 2005, 2006, 2007
- COSC 4328, Computer Graphics, Texas A&M University-Corpus Christi, Falls, 2005-2013, 2015
- COSC 4353, Compiler Construction Texas A&M - Corpus Christi, 2011, 2012, 2013
- COSC 4396, Directed Independant Study Texas A&M - Corpus Christi, Schedulers and Rendering 2010 Physically Based Animation 2013 Animation of Natural Phenomena 2016

- COSC 4690, Contracted Field Experience Texas A&M - Corpus Christi, 2014, 2015, 2016
- COSC 5328, Advanced Computer Graphics, Texas A&M - Corpus Christi, 2008, 2010, 2012
- COSC 5353, Principles of Compiler Construction Texas A&M - Corpus Christi, 2012
- COSC 4590, Special Topics: AI Robotics, Texas A&M - Corpus Christi, 2017
- COSC 4590, Special Topics: Mobile Programming, Texas A&M - Corpus Christi, 2011
- COSC 5327, Intro to Computer Graphics, Texas A&M - Corpus Christi, 2009 - 2014, 2016
- COSC 5331, Survey of Computer System Software, Texas A&M University-Corpus Christi, 2004,2005,2006,2007
- COSC 5395, Grad Project-Tech Report, Texas A&M - Corpus Christi, 2010, 2013, 2014
- COSC 5351, Advanced Computer Architecture, Texas A&M University-Corpus Christi, 2010-2012, 2014
- COSC 5590, Special Topics: Mobile Programming, Texas A&M - Corpus Christi, 2011
- COSC 5590, Special Topics: Game Programming, Texas A&M University-Corpus Christi, 2009, 2011
- COSC 5590, Special Topics: GPU Programming, Texas A&M - Corpus Christi, 2007
- COSC 5590, Special Topics: Advanced Computer Graphics, Texas A&M - Corpus Christi, 2006
- COSC 5590, Special Topics: Graphics and Visualization, Texas A&M - Corpus Christi, 2005
- MATH 5339, Numerical Analysis Texas A&M - Corpus Christi, 2008
- CMSS 6590, Advanced Topics: Introduction to Scientific Programming Texas A&M - Corpus Christi, 2010
- COSC 455, Computer Graphics, University of Otago, 2002, 2003, 2004
- COSC 470, Special Topics in Computer Graphics and Vision, University of Otago, 2004
- COSC 342, Computer Graphics, University of Otago, 2002, 2003, 2004
- COSC 326, Effective Programming, University of Otago, 2003
- COSC 201, Computers for Professionals, University of Otago, 2002, 2003, 2004
- CIS 541, Numerical Analysis, The Ohio State University, 8 sections over 5 quarters, 2000-1
- Course 28, "Motion Capture: Pipeline, Applications, and Use", SIGGRAPH 2002

## Invited Talks

- "Automated lip-synchronized animation from text", Motion In Games 2009, Zeist, The Netherlands, 24 Nov, 2009
- "Graphics at TAMU-CC", TexGraph 2007, Texas A&M University, College Station, Tx, May 17, 2007
- "Motion Capture for Facial Animation Research", University of Texas - Dallas, Dallas, Tx, October 16, 2006
- "Talking Heads, Trees and Visualization", TexGraph 2005, Texas A&M University, College Station, Tx, May 7, 2005
- "Speech Synchronized Animation", Texas A&M University - Corpus Christi, Computer Science Club, lightning talks, 28 October 2004
- "Towards a 3D Conversational Agent", Texas A&M University - Corpus Christi, Computer & Mathematical Sciences Department, 12 July 2004
- "Facial Animation Techniques Applicable for Games", Otago Student Chapter of The International Game Developers Association, 24 May 2004
- "Kare, A bi-lingual animated conversational agent", Computer and Information Science Seminar Series, University of Otago, May 30, 2003

- “Graphics and Vision Research at the University of Otago”, Hit Lab NZ, Feb,2003
- “Issues With Lip-synch Animation: Can You Read My Lips?” Computer Animation 02, 19-21 June, Geneva, 2002, with Rick Parent
- “Speech-Synchronized Animation”, University of Utah, Dec, 2001
- “Facial Animation”, Columbus Chapter of the ACM, June, 1998

## Administrative and Curricular Accomplishments

- Updated CS introductory Sequence and First Year Program 2015-16. Increased first year retention.
- ABET Self-Study 2014
- CS MS Program Self-Studey, 2014
- GSCS Doctoral program proposal development, 2012-2014
- CS MS Program Self-Study, 2009
- Overhaul of MS Curriculum 2009-10
- Developed Women in Technology Summer (WITS) Camp, 2008
- Overhaul of MS admissinos process, including using funding to recruit students, 2009-2010.
- ABET Self-Study 2006 Curriculum and Assessment
- Developed committee structure for graduate and undergraduate program and chaired undergraduate studies committee, 2006
- Overhauled BS curriculum to conform to House Bill 1172 for a 120-Hr BS, 2005

## Professional Service

- Image and Vision Computing New Zealand 2016 Program Committee
- Computer Animation and Social Agents 2016 International Program Committee
- Motion in Games 2016 Program Committee
- Image and Vision Computing New Zealand 2015 Program Committee
- Computer Animation and Social Agents 2015 International Program Committee
- Ubiquitous Positioning, Indoor Navigation and Location-Based Services UPINLBS 2014 Program Committee
- Ubiquitous Positioning, Indoor Navigation and Location-Based Services 2014, Program Committee
- Image and Vision Computing New Zealand 2014 Program Committee
- Computer Animation and Social Agents 2014 International Program Committee
- Image and Vision Computing New Zealand 2013 Program Committee
- Computer Animation and Social Agents 2013 International Program Committee
- Image and Vision Computing New Zealand 2012 Program Committee
- Computer Animation and Social Agents 2012 International Program Committee
- Image and Vision Computing New Zealand 2011 Program Committee
- Motion in Games 2011 Program Committee
- Computer Animation and Social Agents 2011 Program Committee
- Image and Vision Computing New Zealand 2010 Program Committee
- Motion in Games 2010 Program Committee
- Computer Animation and Social Agents 2010 Program Committee
- Motion in Games 2009 Program Committee
- Computer Animation and Social Agents 2009 Executive Committee (Program Chair)
- Computer Graphics International 2009 Program Committee
- Image and Vision Computing New Zealand 2009 Program Committee
- Scientific Committee, Image Vision Computing New Zealand 2008

- Image and Vision Computing New Zealand 2007 Program Committee
- Computer Animation and Social Agents 2007 Program Committee
- Image and Vision Computing New Zealand 2006 Program Committee
- Computer Animation and Social Agents 2006 Program Committee
- Image and Vision Computing New Zealand 2005 Program Committee
- Graphite 2005 Program Committee
- Pacific Graphics 2004 Program Committee
- Computer Animation and Social Agents 2004 Program Committee
- Fuse (New Zealand Game Developer Conference) 2004 Conference Committee
- SIGGRAPH International Committee, 2002-3
- SIGGRAPH Pathfinders, 2001

## University Service

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- University Data Warehouse Project. (April 2016 - Present).
- University Teacher Education Committee. (September 2015 - Present).
- Intercollegiate Athletics Council - Academic Subcommittee. (January 2016 - August 2018).
- Intercollegiate Athletics Council. (September 2015 - August 2018).
- University International Education Council. (September 2013 - July 2015).
- Judge, 13th Pathways Symposium. (November 2016).
- Computer Science Graduate Studies Committee, Texas A&M - Corpus Christi, 2006-
- Computer Science Undergraduate Studies Committee, Texas A&M - Corpus Christi, 2006-
- Chair Computer Science Graduate Admissions Committee, Texas A&M - Corpus Christi, 2008-2016
- Computing Sciences CS Faculty Search Committee, Texas A&M - Corpus Christi, 2011, 2012, 2013, 2014, 2015, 2016
- Council of Principal Investigators and Research Assistants, Texas A&M - Corpus Christi, 2014-2016
- University Graduate Council, Texas A&M - Corpus Christi, 2012-2015
- College of Graduate Studies Award Committee 2014-2015
- Chair, Computer Science Graduate Studies Committee, Texas A&M - Corpus Christi, 2008-2014
- S&E College Steering Committee, Texas A&M - Corpus Christi, 2011-2014
- Computing Sciences GIS Faculty Search Committee, Texas A&M - Corpus Christi, 2007,2008, 2013
- Department of Mathematics & Statistics Chair Search Committee, Texas A&M - Corpus Christi, 2017
- Conrad Blucher Institute for Surveying and Science, Planning Task Force, 2012-2013
- Computing Sciences External Research Committee. (2008 - 2011).
- Title V-Graduate Programs Advisory Committee, Texas A&M - Corpus Christi, 2009-2012
- Ad hoc committee to revise Graduate Studies website, Texas A&M - Corpus Christi, 2011
- Computing Sciences Research Committee, Texas A&M - Corpus Christi, 2008-2011
- Judge for Graduate Student Association Scholarly Works Symposium, 2008, 2009, 2010
- Network Specialist Search Committee, Texas A&M - Corpus Christi, 2009
- S&T Distinguished Seminar Committee, Texas A&M - Corpus Christi, 2006-2009
- Smoking Policy Committee, Texas A&M - Corpus Christi, 2008-2009
- Computing Sciences Department Operating Procedures Committee, Texas A&M - Corpus Christi, 2007-2008
- Chair Computer Science Undergraduate Studies Committee, Texas A&M - Corpus Christi, 2006-2008

- ARS Mentor, Texas A&M - Corpus Christi, 2006
- McNair Mentor, Texas A&M - Corpus Christi, 2009-2010
- Computing Sciences Department Web Committee, Texas A&M University-Corpus Christi, 2006-2007
- Computing Sciences Department Chair Search Committee, Texas A&M University-Corpus Christi, 2006,2007
- Computing Sciences Department Senior Secretary Search Committee, Texas A&M University-Corpus Christi, 2006
- Computing Sciences Department Network Specialist II Search Committee, Texas A&M University-Corpus Christi, 2009
- Computing Sciences Department Promotion and Tenure Committee, Texas A&M University-Corpus Christi, 2008-
- Faculty Senate, Budget Committee Texas A&M University-Corpus Christi, 2007-2008
- Faculty Senate, Awards, Bylaws and Elections Committee Texas A&M University-Corpus Christi, 2006-2007
- Faculty Senate, Texas A&M University-Corpus Christi, 2006-2008
- Instructor, Summer Camp for Applied Mathematics Preparation, Texas A&M University-Corpus Christi, 2005-2006
- COAST Mentor, Texas A&M - Corpus Christi, 2005
- S&T College Research Release Committee, Texas A&M - Corpus Christi, 2006-2007
- Attended S&T Meet and greet Fall Semester, Texas A&M - Corpus Christi, 2006
- Computer Science Club Faculty Advisor, Texas A&M - Corpus Christi, 2005-2010
- Computer Science, House Bill 1172 Committee, Texas A&M - Corpus Christi, 2005
- Momentum 2015, Excellence Task Force, Texas A&M - Corpus Christi, 2005
- Computer Science ABET Committee, Texas A&M - Corpus Christi 2004-2007
- Computer Science ABET Assessment Officer, Texas A&M - Corpus Christi 2007-2008
- Computer Science Assessment Committee, Texas A&M - Corpus Christi 2008-2010
- College of Science & Technology Faculty Enhancement Research Committee, TAMU-CC 2004-2006
- College of Science & Technology Workload Release Committee, TAMU-CC 2004-2006
- Faculty Renaissance Center Brown Bag Seminar on "Experiences & Opportunities in Interdisciplinary Collaboration.", Texas A&M - Corpus Christi March 9, 2005
- Computer and Information Science 25<sup>th</sup> Anniversary Committee, Ohio State University, 2001
- Chair, CIS Graduate Steering Committee, The Ohio State University, 1999-2000
- Council of Graduate Students, The Ohio State University, 1998-2000.
- Central Ohio Transit Authority Advisory Committee, The Ohio State University, 1998-2000

## **Community Service**

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- Texas Skills USA, state finals judge for Animation and Visualization, mar 29-30, 2007
- Weldon Smith Elementary Science Fair Judge, 2006
- Chair, Volunteers for Medical Eng. of TX Programming and Comm. Group, 1989-90
- Judge for Windsor Park Science Fair, Feb 7, 2008

## Reviewer Experience

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### Journals

- *Journal of Real-Time Image Processing* 2014, 2015, 2017
- *Computer Animation and Virtual Worlds* 2009, 2014
- *IEEE Transactions on Visualization and Computer Graphics*, 2000, 2001, 2003, 2004, 2005,2006, 2007, 2011, 2012
- *Computer Graphics Forum*, 2007,2008,2010,2011
- *The Visual Computer*, 2002, 2008, 2011
- *ACM Transactions on Graphics*, 2006
- *IEEE Computer Graphics and Applications* 2008, 2009,2010
- *IEEE Transactions on Systems, Man, and Cybernetics*, 2003

### Grant Proposals

- The Netherlands Organisation for Scientific Research, 2012,
- Canada Foundation for Innovation, 2011
- Research Grant Council of Hong Kong, 2011(2)

### Conferences

- Ubiquitous Positioning, Indoor Navigation and Location-Based Services UPINLBS, 2014
- Advanced Concepts for Intelligent Vision Systems, ACIVS 2007
- Computer Animation and Social Agents CASA, 2004-7, 2009-16
- Consortium for Computing Sciences in Colleges: South Central Region, 2007, 2008
- Eurographics short papers, 2005
- Graphite, 2005
- Image Vision Computing New Zealand IVCNZ, 2005-2016
- Mirage 2003 conference
- Motion In Games (MIG), 2009-11
- New Zealand Game Developer Conference, 2004
- Pacific Graphics, 2004
- SIGGRAPH, 2005, 2009
- SIGGRAPH Asia 2008
- SIGGRAPH CDROM Reviewer, 1998-2001
- SIGGRAPH Course Reviewer, 1998-2000
- SIGGRAPH Sketches, 1999

### Books

- Wiley UK, 2001

## Ph.D. Dissertations

- University of Otago, 2010, 2011, 2017
- University of Sydney, 2003

## Masters Theses

- University of Auckland 2004
- University of Otago 2003

## Professional Memberships

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- Association for Computing Machinery (ACM) (Since 1985)
- ACM Special Interest Group on Computer Graphics
- Institute of Electrical and Electronics Engineers, (IEEE)
- IEEE Computer Society
- The Computer Graphics Society
- EUROGRAPHICS

## Students Advised

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- Ismail Hadimlioglu, "Flood Modeling" (PhD 2018 expected)
- Xinyang Zhou, "Real-Time Realistic Face Model Renderer", (MS, 2017 expected)
- Arun Balasubramanian, "Collaborative moving", (MS, 2018)
- Shubaraj Pradeep Arsekar, "Gesture Control of Robots", (MS, 2018)
- Evan Krell, "Self-Exploring Robots.", (MS, 2018)
- Thanh Pham, "Comparison of 2D vs 3D displays for Determining Agricultural Attributes", (MS, 2017 expected)
- Jiaqi Hu, "A Personal Facial Expression Monitoring System Using Deep Learning", (MS, 2017)
- Dat Do, "An Infrastructure for Interactive Environments", (MS, 2017)
- Vinay Pinnaka, "Design and Implementation of SmartLab Infrastructure", (MS, 2017)
- Dhan Huynh, "Development of a Standardized Framework for Cost-Effective Communication System Based on 3D Data Streaming and Real-Time 3D Reconstruction", (MS, 2017)
- Leana Bouse, "Voice and Gesture Integrated Development Environment: Keyboard Free Programming", (MS, 2017)
- Dung Le, "Building 3D Models from Depth Sensor", (MS, 2015)
- Akash Gaurav, "Water Modeling", (MS, 2015)
- Ismail Hadimlioglu, "Automated Musical Transitions Through Rule-Based Synthesis Using Musical Properties" (MS 2013)
- Kien Dinh, "Blue Sky: A side-scroller computer game" (MS, 2014)
- Shuyi Zhao, "An Android Application for Facial Aesthetic Analysis" (MS, 2014)
- Ming Yang Teng, "Quantifying Epifauna Coverage on Seagrass Blades Using Hyperspectral Imaging and Graphics Processing Units" (MS 2013)
- Gaowei Chen, "3D Environment Mapping using an RGB-D Camera" (MS 2012)
- Praneeth Koralla (MS 2011)
- Kitay Diejomaoh (MS 2011)

- Long Huynh Kim (M.S. 2010)
- Ryan Edwards (M.S. 2010)
- Anh Tuan Do (M.S. 2010)
- Wei Wang (M.S. 2010)
- Jason Picarazzi (M.S. 2009)
- Ramkumar Vangala (M.S. 2008)
- Rafal Dopierala, "Visualization of Optical Speech Prosody", M.S. 2007
- Geethanjali Gopal (M.S. 2006)
- Larry Young (M.S. 2006)
- Stan Leja (M.S. 2006)
- Jessica Dick (M.S. 2005)
- Adrew Wood (M.S. 2005)
- Zhuming Lam (M.S. 2004, awarded with distinction)