

Reynold Bailey

Department of Computer Science
Golisano College of Computing and Information Sciences
Rochester Institute of Technology
102 Lomb Memorial Drive
Rochester, NY, 14623

Phone: +1-585-474-6181
Fax: +585-475-4935
Office: GOL-3015
rjb@cs.rit.edu
<http://www.cs.rit.edu/~rjb>

EDUCATION

- Ph.D. in Computer Science** August 2007
Washington University, St. Louis, MO
Thesis: "Perception-Guided Image Manipulation"
Research Advisor: Cindy Grimm
- M.S. in Computer Science** May 2004
Washington University, St. Louis, MO
Thesis: "A Thesis on Techniques for Non-Photorealistic Shading Using Real Paint"
Research Advisor: Cindy Grimm
- B.S. in Computer Science and Mathematics** May 2001
Midwestern State University, Wichita Falls, TX
Research Advisor: Nelson Passos

PROFESSIONAL APPOINTMENTS AND RESEARCH EXPERIENCE

- Department of Computer Science, Rochester Institute of Technology** January 2019 - present
Associate Undergraduate Program Coordinator
- Department of Computer Science, Rochester Institute of Technology** August 2018 - present
Professor
- Department of Computer Science, Rochester Institute of Technology** January 2018 - December 2018
Undergraduate Program Coordinator
- Department of Computer Science, Rochester Institute of Technology** August 2015 - January 2018
Associate Undergraduate Program Coordinator
- Department of Computer Science, Rochester Institute of Technology** August 2013 – August 2018
Associate Professor
- Department of Computer Science, Rochester Institute of Technology** August 2007 - present
Co-director of Computer Graphics and Applied Perception Lab
- Department of Computer Science, Rochester Institute of Technology** August 2007 – August 2013
Assistant Professor
- Media & Machines Laboratory, Washington University in St. Louis** May 2001 – August 2007
Graduate Research Assistant
- Compilers and Enhanced Architecture Research, Midwestern State University** June 1999 - May 2001
Undergraduate Research Assistant

TEACHING EXPERIENCE

- Computer Science MS Project Colloquium (CSCI 788), Rochester Institute of Technology**
Spring 2019, Spring 2018, Spring 2017, Spring 2016
- Computational Geometry (CSCI 716), Rochester Institute of Technology**
Fall 2018, Fall 2017, Fall 2016, Spring 2015

Foundations of Computer Graphics (CSCI 610), Rochester Institute of Technology

Fall 2014, Spring 2014

Introduction to Computer Graphics (CSCI 510), Rochester Institute of Technology

Fall 2015, Fall 2013

Applied Perception in Graphics and Visualization (CSCI 713), Rochester Institute of Technology

Fall 2015, Fall 2014, Fall 2013

Computer Graphics 1 (4003-570 / 4005-761), Rochester Institute of Technology

Spring 2012, Fall 2012, Fall 2011, Fall 2010, Fall 2009, Fall 2008, Spring 2007, Winter 2007, Fall 2007

Computer Graphics 2 (4003-571 / 4005-762), Rochester Institute of Technology

Spring 2011, Winter 2011, Winter 2010 (two sections), Winter 2009, Spring 2008, Winter 2008

Seminar on Applied Perception in Graphics & Visualization (4005-769), Rochester Institute of Technology

Spring 2012, Spring 2011, Spring 2010, Spring 2009

MS Project/Thesis Seminar (4005-983), Rochester Institute of Technology

Fall 2011

Computer Science 1 (4003-231), Rochester Institute of Technology

Fall 2009, Fall 2008, Fall 2007

Computer Science 2 (4003-232), Rochester Institute of Technology

Winter 2009, Winter 2008, Winter 2007

Computer Science 3 (4003-233), Rochester Institute of Technology

Spring 2009, Spring 2008, Spring 2007

Mathematical Tools for Computer Science (CSE 402), Washington University in St. Louis

Fall 2004

Research Seminar: Human Visual Perception (CSE 7521), Washington University in St. Louis

Fall 2004

Computer Graphics (CSE 452), Washington University in St. Louis (Guest Lecturer)

2003 – 2006

Computer Graphics (CSE 452), Washington University in St. Louis (Teaching Assistant)

Fall 2002

PUBLICATIONS

Journal Publications

- Manjeet Rege, Josan Koruthu, and Reynold Bailey, “*On Knowledge-Enhanced Document Clustering*”, International Journal of Information Retrieval Research (IJIRR), Vol. 2, No. 3, pp. 72-82, 2013.
- Ann McNamara, Reynold Bailey, and Cindy Grimm, “*Search Task Performance Using Subtle Gaze Direction with the Presence of Distractors*”, ACM Transactions on Applied Perception, Vol. 6, No. 3, Article 17, pp. 1-19, August 2009.
- Reynold Bailey, Ann McNamara, Nisha Sudarsanam, and Cindy Grimm, “*Subtle Gaze Direction*”, ACM Transactions on Graphics, Vol. 28, No. 4, Article 100, pp. 1-14, August 2009.
- Reynold Bailey and Cindy Grimm, “*Perceptually Meaningful Image Editing: Manipulating Perceived Depth and Creating the Illusion of Motion in 2D Images?*”, The Visual Computer: International Journal of Computer Graphics, Vol. 23, No. 9, pp. 813-821, September 2007.

- Ankit Mohan, Reynold Bailey, Jonathan Waite, Jack Tumblin, Cindy Grimm, and Bobby Bodenheimer, “*Table-Top Computed Lighting for Practical Digital Photography*”, IEEE Transactions on Visualization and Computer Graphics (TVCG), Vol. 13, No. 3, pp. 1-11, May/June 2007.

Refereed Conference / Workshop Publications

- Gustaf Bohlin, Kristoffer Linderman, Cecilia Ovesdotter Alm, and Reynold Bailey, “*Considerations for Face-based Data Estimates: Affect Reactions to Videos*”, Third International Conference on Human Computer Interaction Theory and Applications (HUCAPP 2019), to appear.
- Kelsey Rook, Brendan Witt, Reynold Bailey, Joe Geigel, Peizhao Hu, and Ammina Kothari, “*A Study of User Intent in Immersive Smart Spaces*”, IEEE International Conference on Pervasive Computing and Communications (PerCom) - Third International Workshop on Pervasive Smart Living Spaces (PerLS 2019), to appear.
- Jordan Shea, Cecilia Ovesdotter Alm, and Reynold Bailey, “*Contemporary Multimodal Data Collection Methodology for Reliable Inference of Authentic Surprise*”, in Proceedings of the 2018 IEEE Western New York Image and Signal Processing Workshop.
- Rakshit Kothari, Zhizhuo Yang, Jeff Pelz, Reynold Bailey, Christopher Kanan, and Gabe Diaz, “*Gaze in Wild: A Dataset for Studying Vestibular-Ocular Coordination in Naturalistic Tasks*”, in Proceedings of the 2018 IEEE Western New York Image and Signal Processing Workshop.
- Ifeoma Nwogu, Bryan Passino and Reynold Bailey, “*A Study on the Suppression of Amusement*”, IEEE Conference on Automatic Face and Gesture Recognition (FG 2018), pp 349-356.
- Nikita Haduong, David Nester, Preethi Vaidyanathan, Emily Prud'hommeaux, Reynold Bailey, and Cecilia Ovesdotter Alm, “*Multimodal Alignment for Affective Content*”, AAAI Conference on Artificial Intelligence - Workshop on Affective Content Analysis (AffCon 2018).
- Rebecca Medina, Daniel Carpenter, Joe Geigel, Reynold Bailey, Linwei Wang, and Cecilia Ovesdotter Alm, “*Sensing Behaviors of Students in Online vs. Face to Face Lecturing Contexts*”, IEEE International Conference on Pervasive Computing and Communications (PerCom) - Workshop on Human-centered Computational Sensing (HCCS 2018), pp 77-82.
- Yancarlos Diaz, Cecilia Ovesdotter Alm, Ifeoma Nwogu, and Reynold Bailey, “*Towards an Affective Video Recommendation System*”, IEEE International Conference on Pervasive Computing and Communications (PerCom) - Workshop on Human-centered Computational Sensing (HCCS 2018), pp 137-142.
- Cecilia Ovesdotter Alm and Reynold Bailey, “*Team-based, Transdisciplinary, and Inclusive Practices for Undergraduate Research*”, IEEE Frontiers of Education 2017, pp. 1-5.
- Ashley Edwards, Anthony Massicci, Srinivas Sridharan, Joe Geigel, Linwei Wang, Reynold Bailey, and Cecilia Ovesdotter Alm, “*Sensor-based Methodological Observations for Studying Online Learning*”, in Proceedings of the 2017 ACM Workshop on Intelligent Interfaces for Ubiquitous and Smart Learning (SmartLearn 2017), pp. 25-30.
- Aliya Gangji, Trevor Walden, Preethi Vaidyanathan, Emily Prud'hommeaux, Reynold Bailey, and Cecilia Ovesdotter Alm, “*Using Co-captured Face, Gaze and Verbal Reactions to Images of Varying Emotional Content for Analysis and Semantic Alignment*”, in Proceedings of 31st AAAI Conference on Artificial Intelligence - Workshop on Human-Aware Artificial Intelligence (HAAI 2017), pp. 621-627.
- Justin Bennett, Srinivas Sridharan, Brendan John, and Reynold Bailey, “*Looking at Faces: Autonomous Perspective Invariant Facial Gaze Analysis*”, in Proceedings of the 13th ACM Symposium on Applied Perception (SAP 2016), pp. 105-112.
- James Pieszala, Gabriel Diaz, Jeff Pelz, Jacqueline Speir, and Reynold Bailey, “*3D Gaze Point Localization and Visualization Using LiDAR-based 3D Reconstructions*”, in Proceedings of the 9th ACM Symposium on Eye Tracking Research and Applications (ETRA 2016), pp. 201-204.
- Srinivas Sridharan, Brendan John, Darrel Pollard, and Reynold Bailey, “*Gaze Guidance for Improved Password Recollection*”, in Proceedings of the 9th ACM Symposium on Eye Tracking Research and Applications (ETRA 2016), pp. 237-240.

- Rakshit Kothari, Kamran Binaee, Jon Matthis, Reynold Bailey, and Gabriel Diaz, “*Novel Apparatus for Investigation of Eye Movements when Walking in the Presence of 3D Projected Obstacles*”, in Proceedings of the 9th ACM Symposium on Eye Tracking Research and Applications (ETRA 2016), pp. 261-266.
- Srinivas Sridharan and Reynold Bailey, “*Automatic Target Prediction and Subtle Gaze Guidance for Improved Spatial Information Recall*”, in Proceedings of the 12th ACM Symposium on Applied Perception (SAP 2015), pp. 99-106.
- Vasudev Bethamcherla, Will Paul, Cecelia Ovesdotter Alm, Reynold Bailey, Joe Geigel, and Linwei Wang, “*Face-speech sensor fusion for non-invasive stress detection*”, in Proceedings of 1st Joint Conference on Facial Analysis, Animation and Audio-Visual Speech Processing (FAAVSP 2015), pp. 196-201.
- Will Paul, Cecelia Ovesdotter Alm, Reynold Bailey, Joe Geigel, and Linwei Wang, “*Stressed out: What speech tells us about stress*”, in Proceedings of INTERSPEECH 2015, pp. 3710-3714.
- Amit Salunke, Manjeet Rege, and Reynold Bailey, “*Evolutionary Image Co-clustering with User Feedbacks*”, in Proceedings of 30th International Conference on Computers and Applications (CATA 2015), pp. 289-294.
- Thomas Booth, Srinivas Sridharan, Vasudev Bethamcherla, and Reynold Bailey, “*Gaze3D: Framework for Gaze Analysis on 3D Reconstructed Scenes*”, in Proceedings of the 11th ACM Symposium on Applied Perception (SAP 2014), pp. 67-70.
- Brendan John, Srinivas Sridharan, and Reynold Bailey, “*Collaborative Eye-Tracking for Image Analysis*”, in Proceedings of 8th ACM Symposium on Eye Tracking Research and Applications (ETRA 2014), pp. 239-242.
- Jeffrey Smith, Thomas Booth, and Reynold Bailey, “*Refresh Rate Modulation for Perceptually Optimized Computer Graphics*”, in Proceedings of 9th International Conference on Computer Graphics Theory and Applications (GRAPP 2014), pp. 200-208.
- Owen Patrick, Manjeet Rege, and Reynold Bailey, “*Extending Space Colonization Tree Modeling for Artistic Control and Environmental Interactions*”, in Proceedings of 9th International Conference on Computer Graphics Theory and Applications (GRAPP 2014), pp. 128-135.
- Thomas Booth, Srinivas Sridharan, Ann McNamara, Cindy Grimm, and Reynold Bailey, “*Guiding Attention in Controlled Real-World Environments*”, in Proceedings of the 10th ACM Symposium on Applied Perception (SAP 2013), pp. 75-82.
- Ann McNamara, Thomas Booth, Srinivas Sridharan, Stephen Caffey, Cindy Grimm, and Reynold Bailey, “*Directing Gaze in Narrative Art*”, in Proceedings of 9th ACM Symposium on Applied Perception (SAP 2012), pp. 63-70.
- Reynold Bailey, Ann McNamara, Aaron Costello, Srinivas Sridharan, and Cindy Grimm, “*Impact of Subtle Gaze Direction on Short-Term Spatial Information Recall*”, in Proceedings of the 7th ACM Symposium on Eye Tracking Research and Applications (ETRA 2012), pp. 67-74.
- Srinivas Sridharan, Reynold Bailey, Ann McNamara, and Cindy Grimm, “*Subtle Gaze Manipulation for Improved Mammography Training*”, in Proceedings of the 7th ACM Symposium on Eye Tracking Research and Applications (ETRA 2012), pp. 75-82.
- James Coddington, Junxia Xu, Srinivas Sridharan, Manjeet Rege, and Reynold Bailey, “*Gaze-based Image Retrieval System using Dual Eye-trackers*”, 2012 IEEE International Conference on Emerging Signal Processing Applications, pp. 37-40.
- Joel Ogden, Jabari Jordan, Chelsey Krol, Tanya Papazain, Hans-Peter Bischof, and Reynold Bailey, “*Photorealistic Rendering of Scientific Data*”, in Proceedings of International Conference on Information Visualization Theory and Applications, (IVAPP 2012), pp. 719-724.
- Anthony Blatner, James Ferwerda, Ben Darling, and Reynold Bailey, “*TangiPaint: A Tangible Digital Painting System*”, in Proceedings of Society for Imaging Science and Technology 19th Color Imaging Conference, 2011, pp. 102-107. (Won Best Interactive Paper Award).
- Reynold Bailey, Hans-Peter Bischof, Minseok Kwon, Tracy Miller, and Rajendra Raj, “*On Providing Successful Research Experiences for Undergraduates*”, in Proceedings of 41st Annual Frontiers in Education (FIE) Conference, 2011, pp. T2F-1-T2F-6.

- Janelle Arita, Jenniffer Feliz, Dennis Rodriguez, Hans-Peter Bischof, Manjeet Rege, and Reynold Bailey, “*Creating Audience Specific Galactic Simulations Using Eye-Tracking Technology*”. International Conference on Information Visualization Theory and Applications, (IVAPP 2011), pp. 218-223.
- Amy Ciavolino, Camille Marvin, Jason Creighton, James Coddington, Hans-Peter Bischof, and Reynold Bailey, “*Toward Affordable Gesture Based Interfaces: An Exploration with Wii Remotes*”. International Conference on Information Visualization Theory and Applications, (IVAPP 2011), pp. 224-229.
- Paul Cassidy, Tyler Kilburn, Vincent Salemin, Reynold Bailey, and Hans-Peter Bischof, “*Improving the Visualization of Galactic Events using Pixar’s RenderMan*”. 19th International Conference on Computer Graphics, Visualization and Computer Vision, 2011, pp. 47-50.
- Nathan Green, Manjeet Rege, Xumin Liu, and Reynold Bailey, “*Evolutionary Spectral Co-Clustering*”, in proceedings of International Joint Conference on Neural Networks (IJCNN 2011), pp 1074-1081.
- Manjeet Rege, Reynold Bailey, and Xumin Liu, “*Inferring Semantics with Object Feedback*”, in Proceedings of 6th International Conference on Advanced Information Management and Service (IMS 2010), pp. 7-10.
- Julio Espinal, Virginia Allen, Kwesi Amable, Reynold Bailey, and Hans-Peter Bischof, “*RenderMan’s Power to Visualization’s Rescue*”. 18th International Conference on Computer Graphics, Visualization and Computer Vision, 2010, pp 243-249.
- Ann McNamara, Reynold Bailey, and Cindy Grimm, “*Improving Search Task Performance Using Subtle Gaze Direction*”, in Proceedings of the 5th Symposium on Applied Perception in Graphics and Visualization (APGV 2008), pp. 51-56.
- Ankit Mohan, Jack Tumblin, Bobby Bodenheimer, Cindy Grimm, and Reynold Bailey, “*Table-Top Computed Lighting for Practical Digital Photography*”, in Proceedings of Eurographics Symposium on Rendering, 2005, pp. 165-172.
- Christopher Kulla, James Tucek, Reynold Bailey, and Cindy Grimm, “*Using Texture Synthesis for Non-Photorealistic Shading from Paint Samples*”, in Proceedings of the 11th Pacific Conference on Computer Graphics and Applications, 2003, pp. 477-481.
- Nelson Passos, Delvin Defoe, Reynold Bailey, Ranette Halverson, and Richard Simpson, “*Theoretical Constraints on Multi-Dimensional Retiming Design Techniques*”, in Proceedings of the AeroSense-Aerospace/Defense Sensing, Simulation and Controls, 2001, pp. 238-245.
- Reynold Bailey, Delvin Defoe, Ranette Halverson, Richard Simpson, and Nelson Passos, “*A Study of Software Pipelining for Multi-Dimensional Problems*”, 13th International Conference on Parallel and Distributed Computing Systems, 2000, pp. 426-431.

Refereed Abstracts / Posters

- Gabriel Diaz, Reynold Bailey, Christopher Kanan, Mychal Lipson, Jeff Pelz, and Rakshit Kothari, “*Data-driven Gaze Event Classification for the Analysis of Eye and Head Coordination by Natural Tasks*”, European Conference on Eye Movements, (ECEM 2017).
- Rakshit Kothari, Kamran Binaee, Reynold Bailey, Christopher Kanan, Gabriel Diaz, and Jeff Pelz, “*Gaze-in-World Movement Classification for Unconstrained Head Motion during Natural Tasks*”, Journal of Vision 17(10), 1156-1156 (VSS 2017).
- Rakshit Kothari, Gabriel Diaz, Kamran Binaee, Reynold Bailey, and Johnatan Matthis, “*The Influence of Biomechanics on Visual Attention while Walking*”, Journal of Vision 16 (12), 1362-1362 (VSS 2016).
- Daniel Simon, Srinivas Sridharan, Shagan Sah, Raymond Ptucha, Chris Kanan, and Reynold Bailey, “*Automatic Scanpath Generation with Deep Recurrent Neural Networks*”, 13th ACM Symposium on Applied Perception (SAP 2016).

- Srinivas Sridharan, Reynold Bailey, “*Saliency and Optical Flow for Gaze Guidance in Videos*”, 13th ACM Symposium on Applied Perception (SAP 2016).
- Srinivas Sridharan, James Pieszala, and Reynold Bailey, “*Depth-Based Subtle Gaze Guidance in Virtual Reality Environments*”, 12th ACM Symposium on Applied Perception (SAP 2015).
- Amog Rajenderan, Srinivas Sridharan, and Reynold Bailey, “*An Affective Movie Rating System*”, 11th ACM Symposium on Applied Perception (SAP 2014).
- Dana Slambekova, Reynold Bailey, and Joe Geigel, “*Gaze and Gesture Based Object Manipulation in Virtual Worlds*”, ACM Symposium on Virtual Reality Software and Technology (VRST 2012).
- Srinivas Sridharan, Yuqiong Wang, Sean Xu, Bharath Rangamannar, Cyprian Tayrien, Stephen Ranger, Reynold Bailey, and Joe Geigel, “*Drawing with the Eyes and Face*”, 9th ACM Symposium on Applied Perception (SAP 2012).
- Junxia Xu, Okka Kyaw, Dana Slambekova, Manjeet Rege, and Reynold Bailey, “*Gaze-Con: A Gaze Controlled Application Framework*”, in Proceedings of International Association for Computer Information Systems Annual Conference (IACIS 2012).
- Josan Koruthu, Manjeet Rege, and Reynold Bailey, “*A Framework for User-Guided Document Clustering*”, in Proceedings of International Association for Computer Information Systems 52nd Annual Conference (IACIS 2012).
- Srinivas Shridharan, Reynold Bailey, Ann McNamara, and Cindy Grimm, “*Subtle Gaze Manipulation for Improved Mammography Training*”, 8th ACM Symposium on Applied Perception in Graphics and Visualization (APGV), 2011.
- Reynold Bailey, Ann McNamara, Aaron Costello, and Cindy Grimm, “*Impact of Subtle Gaze Direction on Short-Term Spatial Information Recall*”, ACM SIGGRAPH 2011 Talks.
- Reynold Bailey, Ann McNamara, Nisha Sudarsanam, and Cindy Grimm, “*Subtle Gaze Direction*”, ACM SIGGRAPH 2007 Sketches.
- Reynold Bailey, Ann McNamara, Nisha Sudarsanam, and Cindy Grimm, “*Subtle Gaze Direction*”, ACM SIGGRAPH 2007 Posters, Selected for the ACM Student Research Competition.
- Reynold Bailey, Cindy Grimm, and Christopher Davoli, “*The Effect of Warm and Cool Object Colors on Depth Ordering*”, in Proceedings of 3rd Symposium on Applied Perception in Graphics and Visualization (APGV), 2006.
- Reynold Bailey and Cindy Grimm, “*Creating the Illusion of Motion in 2D Images*”, ACM SIGGRAPH 2006 Research Posters.
- Ankit Mohan, Jack Tumblin, Bobby Bodenheimer, Cindy Grimm, and Reynold Bailey, “*Table-Top Computed Lighting for Practical Digital Photography*”, ACM SIGGRAPH 2005 Sketches.
- Reynold Bailey and Cindy Grimm, “*Using Value Images to Adjust Intensity in 3D renderings and Photographs*”, ACM SIGGRAPH 2004 Posters.

Panels

- Reynold Bailey (Moderator), Guy-Alain Amoussou, Tiffany Barnes, Hans-Peter Bischof, and Thomas Naps, “*Relevant Real-World Undergraduate Research Problems: Lessons from the NSF-REU Trenches*”, Proceedings of the 41st ACM Technical Symposium on Computer Science Education SIGCSE 2010.

GRANTS

GCCIS – Seed Funding Program - \$10,200 <i>Data-driven Framework for Realistic Self-Organized Virtual Humans</i>	2018-2019
GCCIS – Dean’s Office - \$12,000 <i>Enhancing Software and Hardware Resources for Computational Sensing Research</i> With Cecilia Ovesdotter Alm	2017-2018
COLA - Faculty Evaluation and Development (FEAD) - \$5,000 <i>Extending Opportunities for Human-Focused Sensing Research</i> With Cecilia Ovesdotter Alm	2017-2018
NSF - Research Experiences for Undergraduates (REU) - \$359,866 <i>REU Site: Computational Sensing</i> With Cecilia Ovesdotter Alm	2016-2018
COS – Dean’s Research Initiation Grant - \$15,000 <i>Data Driven Methods for Event Detection in Eye Tracking Signals</i> With Gabriel Diaz, Jeff Pelz, and Chris Kanan	2016-2017
NSF – Research Experiences for Undergraduates (REU Supplement) - \$15,840 <i>CAREER: Gaze Manipulation - REU supplemental funding</i>	2015-2016
NSF – Research Experiences for Undergraduates (REU Supplement) - \$15,840 <i>CAREER: Gaze Manipulation - REU supplemental funding</i>	2014-2015
GCCIS – Seed Funding Program - \$12,500 <i>An Open Source Infrastructure for Emotional Transfer of Facial Expression to Avatars in Virtual Worlds</i> With Joe Geigel	2014-2015
GCCIS - Kodak Endowed Chair Fund - \$42,000 <i>Sensor Fusion for Cognitive Load and Stress Monitoring and Detection</i> With Linwei Wang, Cecilia Ovesdotter Alm, and Joe Geigel	2013-2014
RIT – Provost’s Learning Innovation Grant (PLIG) - \$5,000 <i>Closed Visual Cues for Introductory Programming Tutorial Videos</i> With Raja Kushalnagar	2013-2014
Goodrich Corporation - \$40,000 <i>Smart High Dynamic Range Display Interface</i> With Jeff Pelz and Susan Farnand	2012-2013
RIT – Office of Vice President of Research - \$20,000 <i>Mining Dynamic K-12 Educational Datasets</i> With Manjeet Rege	2010-2011
RIT & RGHS Alliance Seed Funding Program - \$20,000 <i>Stereo Simulation of Robotic Prostate Surgery</i> With Marla Schweppe, John Valvo, and Louis Eichel	2010-2011
NSF – Faculty Early Career Development (CAREER) - \$549,586 <i>CAREER: Gaze Manipulation</i>	2010-2016
NSF - Research Experiences for Undergraduates (REU) - \$275,000 <i>REU Site: High Performance Filesystems and Data Visualization</i> With Hans-Peter Bischof, Minseok Kwon, and Rajendra Raj	2009-2011
RIT Faculty Evaluation and Development (FEAD) Grant - \$5,000 <i>Adaptive Gaze Direction for Video</i>	2009-2010

DEPARTMENTAL, COLLEGE, AND INSTITUTE SERVICE

Department level service, Department of Computer Science, Rochester Institute of Technology

Co-chair of CS Department Industrial Advisory Board committee	2016-2019
Participant in CS Phone Power Initiative – outreach to AALANA students	2016-2017
Department open house panelist / lab tours	2008-2018
Member of ad hoc committee to select CS student delegate for commencement	2013-2015
Co-chair of CS department visibility committee	2015
Co-chair of ad hoc committee to consider the future of BS enrollments in CS @ RIT	2014
Co-chair of virtual retreat on collaborative research	2014
Chair of ad hoc academic honesty committee	2012-2014
CS Chair Advisory Committee Member	2013-2015
Student Scholarship Outreach Retention and Recruitment (SOAR) Committee Member	2013-2014
Computer Science Department Chair Search Committee Member	2012-2013
Research presentation to undeclared majors	2011
Curriculum Committee Member	2010-2011
Participant in CS Phone Power Initiative – outreach to AALANA students	2009-2010
Scholarship Committee Member	2009-2010
Member of ad hoc committee to select CS student delegate for commencement	2009
Student Scholarship Outreach Retention and Recruitment (SOAR) Committee Chair	2008-2010
Hiring Committee Member	2008-2009
Student Scholarship Outreach Retention and Recruitment (SOAR) Committee Member	2007-2008
Facilities Committee Member	2007-2008

College level service, GCCIS, Rochester Institute of Technology

Member of GCCIS Faculty Scholarship Award Committee	2017-2019
Member of GCCIS Mid-Tenure Review Committee	2016-2017
Guest Lecturer for GCCIS Computing Exploration Seminar	2016-2017
Member of Increasing Diversity in Computing Strategic Planning Sub-Committee	2013-2014
Member of GCCIS ad hoc scholarship committee	2012-2013
GCCIS Dean Search Committee Member	2010-2011
Meetings with officials from Universiti Teknologi Malaysia to discuss partnership with GCCIS	2010
Faculty Recruiter – Compact for Faculty Diversity Annual Conference	2009
Faculty and Student Recruiter – Richard Tapia Celebration of Diversity in Computing	2009
Member of GCCIS/Richard Tapia Celebration of Diversity Student Scholarship Selection Committee	2009
Member of GCCIS Strategic Planning Committee for Diversity and Inclusivity	2009-2010
Faculty Recruiter – Compact for Faculty Diversity Annual Conference	2008
Student Recruiter – National Society for Black Engineers Annual Conference	2008
College Liaison to North Star Center	2008-2009

Institute level service, GCCIS, Rochester Institute of Technology

Member of Academic Affairs Committee	2017-2019
Member of committee developing a proposal for a center for human-aware AI at RIT	2017-2018
Panelist on RIT Future Faculty Career Exploration Program “Straight Talk” panel	2016-2018
Exhibitor at Girls Soaring in STEM Fair, RIT	2017-2018
External faculty search committee member for College of Imaging Arts and Sciences	2015-2016
Co-chair of Long Range Planning and Environment Committee	2014-2015
Member of Campus Environment Committee	2013-2014

Panelist on RIT NSF CAREER Advice session	2014
Co-organizer of RIT Alumni Reception at ACM SIGGRAPH annual conference	2014
Reviewer of campus-wide NSF CAREER grant proposals	2013
Member of Academic Support Committee	2012-2013
External faculty search committee member for Center for Imaging Science	2012-2013
Presenter at RIT College & Careers Conference	2012
Presenter at RIT Sponsored Research Services Information Session on NSF CAREER Grants	2011
Panelist on “Getting Started in Research” panel at RIT Grant Writers Boot Camp	2010
Meetings with officials from North Carolina A&T State University to discuss partnership with RIT	2010
Panelist on RIT Future Faculty Career Exploration Program “Straight Talk” panel	2012-2013
Research Advisory Board Retreat and Brainstorming Session Participant	2010
Functional Partners Diversity Council Member	2007-2009
Partnerships in Pluralism Participant	2008-2009

PROFESSIONAL AND OTHER ACTIVITIES

Member - ACM Special Interest Group on Graphics and Interactive Techniques (SIGGRAPH)	
Member - Association for Computing Machinery (ACM)	
Member - Multidisciplinary Vision Research Laboratory, Rochester Institute of Technology	
Doctoral Symposium co-chair - ACM Eye Tracking Research and Applications (ETRA)	2019
Reviewer for Pervasive and Mobile Computing Journal	2018
Co-chair of IEEE Workshop on Human-centered Computational Sensing (HCCS)	2018
Exhibitor at Girls Soaring in STEM Fair, Rochester Institute of Technology	2018
Doctoral Symposium co-chair - ACM Eye Tracking Research and Applications (ETRA)	2018
Mentor for Fairport High School NASA HUNCH student design team	2018
Core Faculty Member - RIT Center for Human-aware AI	2018
Panelist - Strategies for Successful Undergraduate Research: an Interdisciplinary Roundtable, RIT	2017
Reviewer for ACM Transactions on Graphics	2017
Co-organizer of “Move 78” AI Seminar Series, Rochester Institute of Technology	2017
Exhibitor at Girls Soaring in STEM Fair, Rochester Institute of Technology	2017
Participant in Cornell Faculty Leadership Development Program	2017
Mentor for RIT-RISE Scientists-in-Training Program for Deaf and Hard-of-Hearing Undergraduates	2017
Papers co-chair of ACM Symposium on Applied Perception (ACM SAP)	2016
Doctoral Symposium co-chair – ACM Eye Tracking Research and Applications (ETRA)	2016
Reviewer for ACM Eye Tracking Research and Applications (ETRA)	2016
Reviewer for IEEE VR	2016
Reviewer for European Association for Computer Graphics (EUROGRAPHICS)	2016
Member – Organizing Committee for RIT Frameless Labs VR/AR Symposium	2016
Presenter of VR/AR overview and demos for Cub Scout Pack 2	2016
Reviewer for NSF Computer & Information Science & Engineering (CISE) Program	2015
Reviewer for ACM Transactions on Applied Perception	2012-2016
Member - Intl. Program Committee, ACM Symposium on Applied Perception	2015
Reviewer for Pervasive and Mobile Computing Journal	2015
“Cool Tech Gadgets” presenter at Greece Public Library	2015
Editorial Board Member - Journal of Computer Graphics Techniques	2013-2017
Conference co-chair of ACM Symposium on Applied Perception (ACM SAP)	2014
Reviewer for ACM Eye Tracking Research and Applications (ETRA)	2014
“Science Fun Day” presenter at Quest Elementary School	2014

Member - Intl. Program Committee, ACM Symposium on Applied Perception	2014
Exhibitor at Imagine RIT Innovation Festival	2009-2018
Reviewer for European Association for Computer Graphics (EUROGRAPHICS)	2013
Treasurer – Rochester Finger Lakes Professional Chapter of ACM SIGGRAPH	2010-2017
Reviewer for ACM Transactions on Graphics	2013
Reviewer for ACM Eye Tracking Research and Applications (ETRA)	2013
Research exhibit at RIT Effective Access conference	2013
Program Committee member for IEEE Systems, Man, and Cybernetics	2013
Invited Talk – Rochester IEEE Joint Chapters Meeting	2013
Member - Intl. Program Committee, ACM Symposium on Applied Perception	2012
Presenter at RIT Computer Science for High School Workshop	2012
Reviewer for European Association for Computer Graphics (EUROGRAPHICS)	2012
“Career Day” presenter at Bay Trail Middle School	2012
Member - Intl. Program Committee, Symposium on Applied Perception in Graphics & Visualization	2011
Reviewer for NSF Computer & Information Science & Engineering (CISE) Program	2011
Participant in NSF Sponsored Meeting on “Creating a Climate for Interdisciplinary Computing”	2011
Presenter at RIT Computer Science for High School Workshop	2011
Presenter at RIT Computer Science Community “Teacha-Talk” Series	2011
Presenter at RIT Career Day for Local High School Students	2010
Judge for Student Research Competition at SIGGRAPH	2010
Reviewer for NSF Computer & Information Science & Engineering (CISE) Program	2010
Reviewer for NSF Broadening Participation in Computing Alliance (University/K-12 Partnership)	2009
Reviewer for ACM SIGGRAPH general submissions: posters, talks, courses, emerging technologies	2009
Reviewer for the Journal of the Electronics and Telecommunications Research Institute (ETRI)	2009
Panelist for NSF Louis Stokes Alliances for Minority Participation Information Session, RIT	2009
Judge for Richard Tapia Celebration of Diversity in Computing Student Research Competition	2009
Reviewer for Grant-Writer’s Boot Camp project proposals, Rochester Institute of Technology	2008
Advisor - Caribbean Student’s Association, Rochester Institute of Technology	2008-2009
Invited Speaker, Chancellor’s Graduate Fellowship Conference, Washington University St. Louis	2008
Reviewer for ACM Transactions on Graphics	2006
Reviewer for IEEE Computer Graphics and Applications	2006
Reviewer for poster session of ACM SIGGRAPH	2006

M.S. AND PH.D. COMMITTEES

Ph.D. Committee Chair

Srinivas Sridharan, “*Gaze Guidance, Task-Based Eye Movement Prediction and Real-World Task Inference using Eye Tracking*” **May 2016**

Zhizhuo Yang **Expected 2021**

Ph.D. Committee Member (past and current)

Jie Yang, Jingjia Xu, Adrià Forés Herranz, Jiashu Zhang, Yuqiong Wang, Dong Wang, Allen Harper, Zhiyuan Li, Rakshit Kothari, Kamran Binaee, Nargess Hassani

M.S. Thesis/Project Advisor

Sanket Sheth, “*Characterizing Surprise using Multimodal Data with Deep Learning*” co-chair with Cecilia Alm **December 2018**

Chinmay Kulkarni, “*Collaborative Eye-Tracking for Multimedia Analysis*” **May 2018**

Shrinivas Arun Joshi, “*Multiplayer and Collaborative Virtual Reality*” **May 2018**

Richard Palackas, “*Object Tracking and Image Analysis for Observing and Reviewing Miniatures Games*” **May 2018**

Yeshwanth Raja, “ <i>Innovative Remote Device Services Using Deep Learning</i> ” co-chair with Eli Saber	May 2018
Ajinkya Dhaigude, “ <i>Augmented Reality on Mobile Devices using SLAM</i> ”	May 2018
Abhishek Jaitley, “ <i>Virtual Reality application for guided meditation</i> ”	December 2017
Chirag Narendra Kular, “ <i>Alexa in Mixed Reality</i> ”	December 2017
Dhanasekar Elangovan, “ <i>Visualization and Analysis of LIDAR Data to Segment Tree Stem from Background</i> ”	December 2017
Brendan John, “ <i>A Dataset of Gaze Behavior in VR Faithful to Natural Statistics</i> ”	August 2017
Matthew Seita, “ <i>Multi-User Interactive Applications Using Augmented Reality on Mobile Devices</i> ”	May 2017
Bryan Passino, “ <i>Using Affective Computing to Determine Subject Truthfulness</i> ”	May 2017
Nishtha Ahuja, “ <i>e-Stylist: A Machine Learning aided Fashion Stylist</i> ”	May 2017
Priyank Singh, “ <i>House of Cards: Framework for Memory Experiments in VR</i> ”	May 2017
Stephen Ranger, “ <i>Icosatree Data Partitioning of Massive Geospatial Point Clouds</i> ”	December 2016
Michelle Norris, “ <i>Augmented Reality Markers: CAD Renderings vs Photos</i> ”	December 2016
Rohit Aila, “ <i>Poker Odds Calculator using visual content</i> ”	December 2016
Justin Bennett, “ <i>Looking at Faces: Autonomous Perspective Invariant Facial Gaze Analytics</i> ”	May 2016
Pratima Gadhawe, “ <i>Visualizing Furniture Placement in a 3D Scanned Room</i> ”	May 2016
Dawei Huang, “ <i>Evaluation and Integration of Leap Motion Controller on Mobile Devices for Augmented Reality</i> ”	May 2016
Victor Trejo Reyes, “ <i>Multimodal Recommendation System for Recipes</i> ” co-chair with Cecilia Alm	May 2016
Michael Fink, “ <i>Task Inference Using Eye-Tracking Data and Visual-Bag-Of-Words</i> ”	May 2016
James Pieszala, “ <i>3D Gaze Point Localization and Visualization Using LiDAR-based 3D Reconstructions</i> ”	December 2015
Hitesh Vyas, “ <i>Real World Speed Estimation for VR Walking Control</i> ”	December 2015
Pritesh Shah, “ <i>Cloth Simulation on a 3D Scanned Model</i> ”	December 2015
Timothy Fratangelo, “ <i>Color Vision Assistance</i> ”	August 2015
Vasudev Bethamcherla, “ <i>Towards Visually Plausible Real-Time Augmented Reality on Mobile Devices</i> ”	August 2015
Piter Garcia, “ <i>Integration of Microsoft Kinect and Leap Motion for Applications in Sign Language Recognition</i> ”	May 2015
Mansi Vora, “ <i>Automatic Image Annotation</i> ”	November 2014
Gunasheela Raya, “ <i>Collaborative Haptics</i> ”	May 2014
Ravie Tanwar, “ <i>Gesture Recognition and Prediction using Microsoft Kinect</i> ”, co-chair with Carol Romanowski	May 2014
Amog Rajenderan, “ <i>An Affective Movie Recommendation System</i> ”	May 2014
Thomas Booth, “ <i>Guiding Attention in Controlled Real-World Environments</i> ”	April 2014
Walter Litwinczyk, “ <i>Using Mental Models and Human Perception to Improve Image Segmentation</i> ”	April 2014
Ben Kaiser, “ <i>Interactive Approach to Registration and Refinement of GPS Coordinates in a Navigation System</i> ”	May 2013
Owen Patrick, “ <i>Extending Space Colonization Tree Modeling for Fast Environmental Interactions</i> ”	May 2013
Liangyi Fan, “ <i>A Novel Method to Analyze Multi-View Portable Eye-tracking Data</i> ”	February 2013
Bharath Rangamannar, “ <i>Implementing a user-assisted Painting System</i> ”	January 2013
Jeffrey Smith, “ <i>Perceptually Meaningful Computation</i> ”	May 2012
Steve Glazer, “ <i>Augmented Reality Campus Navigation System</i> ”	May 2012
Junxia Xu, “ <i>Gaze as an Integrated Form of Input</i> ”	May 2012
Daniel Rabess, “ <i>Interactive Techniques for Real-Time Surgical Simulations</i> ”	February 2012
Madayi Kolangarakath Rohit, “ <i>Real-time Surgical Simulation Using Deformable Meshes</i> ”	May 2011
Anthony Blatner, “ <i>TangiPaint: Interactive Tangible Media</i> ”, co-chair with James Ferwerda	May 2011
Anoop Thomas, “ <i>Parallel Ray Tracing: Analysis of GPU Platforms</i> ”	October 2010
Sean Janis, “ <i>Interactive Natural User Interfaces</i> ”	May 2010

M.S. Committee Member

Chandini Ramesh, Ameya Lonkar, Angel Cambero Ramos, Shitao Gu, Tiago Justino, Dengyu Liu, Alex Katamos, Gregory Fotiades, Allan Lambie, Eugene Koon, Paul Solt, Harshada Desai, Aniket Shirawadekar, Mayur Nemade, Pratik Desai, Lakshmi Murugiah, Abhijit Bhelande, Mark Hazlewood, Pooja Sunder, Nachiket Bhojar, Ahmed Nabhan, Gaurav Thawrani, Tiannan Zheng,	2007-2019
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Adam Romney, Libby Hsiao, Ankur Doshi, Adam Oest, Mario Rosa, Andy Brown, Nathaniel Moseley, Mihir Chitnis, Okka Kyaw, Nathan Smith, Darren Stanley, Laura Wieme, Ian Wittenberg, Pankaj Andhale, Parth Bakshi, Pooja Desai, Jagadeeshwaran Ranganathan, David Steenburgh, Shambhavi Dinakar, David Stawski, Dana Slambeckova, Anvi Maliva, Julio Espinal, Adarsh Chavali, Vinayak Suley, Peter Mahon, Stephen Sarnelle, John Lucasiewicz, John Kaeuper, Pranabesh Sinha, David Huynh, Rachel Manoni, Emmett Coakley, Trevor Clarke, Benjamin Bloom, Rohan Mehalwal, Alan Pilecki, Mike Romero, Mustapha Gusemia, Alok Roi, Binil Kurian, Payal Patel

OTHER STUDENT RESEARCH ACTIVITIES

Co-PI for NSF Summer Research Experiences for Undergraduates Program in CLA/CS at RIT (with Cecilia Ovesdotter Alm) 2016-2021

Co-PI for NSF Summer Research Experiences for Undergraduates Program in CS at RIT (with Hans-Peter Bischof, Minseok Kwon, and Rajendra Raj) 2009-2011

Undergraduate/Graduate Independent Study and Capstone Project Advising

Thomas Landi, Jordan Shea, Chandini Ramesh, Sarathi Hansen, Bryan Passini, Evan Krueger, Jose Salazar, Dan Simon, Mike Fink, Vivek Bhansali, Victor Paiz, James Pieszala, Vasudev Bethamcherla, Justin Bennet, Piter Garcia, Brendan John, Timothy Fratangelo, Emily Abele, Gunasheela Raya, Walter Litwinczyk, Prema Keshari, Wander Bravo Boria, Thomas Booth, Ben Kaiser, Bharath Rangamannar, Cyprian Tayrien, Steven Wright, Steve Glazer, Daniel Rabess, Luke Curley, Aaron Costello, Anoop Thomas, Jason Kraft, Ben DeLillo, Okka Kyaw, Arunkumar Devadoss, Madayi Kolangarakath Rohit 2007-2018

NSF REU Student Mentoring and other Undergraduate Research Advising (not for credit)

Gabriella Alexis, Victoria Kraj, Thomas (Jake) Maranzatto, Bradley Olson, Sunand Raghupathi, Tyrell Roberts, Kelsey Rook, Monali Saraf, Regina Wang, Brendan Witt, Gustaf Bohlin, Kristoffer Linderman, Yancarlos Diaz, Dan Carpenter, Nikita Haduong, Malakhi Hopkins, Emma Jordan, Luke Lapresi, Rebecca Medina, David Nester, Nse Obot, Laura O'Malley, McKenna Tornblad, Ashley Edwards, Anthony Massicci, Albert Burt, Trevor Walden, Aliya Gangji, Rebecca Plourde, Elizabeth Pruett, Alexander Calderwood, Conor Lake, Olivia Irby, Ryan Higgins, Mike Fink, Darrel Pollard, Victor Paiz, Dan Simon, Brendan John, Steven Wright, Cyprian Corwin, Paul Cassidy, Jason Creighton, James Coddington, Ziyang Zhou, Aaron Costello, Julio Espinal, Virginia Allen, Kwesi Amable, Jabari Jordan, Joel Ogden, Caitlin Carter, Dennis Rodriguez 2007-2017

HONORS AND AWARDS

Outstanding Educator Award, College of Computing, Rochester Institute of Technology 2016
Featured Scholar – Faculty Scholarship Report, Rochester Institute of Technology 2014
Faculty Early Career Development Award, National Science Foundation 2010-2016
Chancellor's Graduate Fellowship, Washington University in St. Louis 2001-2007