Biographical Sketch

John M. Edwards, Assistant Professor
Idaho State University
edwajohn@isu.edu

Professional Preparation

Institution	Location	Major	Degree, Year
Utah State University	Logan, Utah	Computer Science	B.S., 1998
Brigham Young University	Provo, Utah	Computer Science	M.S., 2004
The University of Texas	Austin, Texas	Computer Science	Ph.D., 2013
The University of Utah	Salt Lake City, Utah	Visualization	Postdoc, 2013-2015

Appointments

Period	Appointment	Institution & location
2015-Present	Assistant Professor	Idaho State University, Pocatello, ID
2012	Visiting Scholar	University of Hong Kong, Hong Kong, China
2008-2009	Visualization Research Engineer	Autonomous Solutions, Inc., Logan, UT
2005-2008	Software Engineer	ProLogic, Inc., Fairmont, WV
1999-2005	Software Engineer	Rigaku, Inc., Houston, TX

Products

Selected Publications

1. Xin Tong, John Edwards, Chun-Ming Chen, Han-Wei Shen, Christopher Johnson, and Pak Chung Wong. View-dependent streamline deformation and exploration. *IEEE Transactions on Visualization and Computer Graphics*. 22(7):1788-1801. 2016.
2. John Edwards, Eric Daniel, Valerio Pascucci, Chandrajit Bajaj. Approximating the Generalized Voronoi Diagram of Closely Spaced Objects. *Computer Graphics Forum*. 34(2):299-309. 2015.
3. John Edwards, Eric Daniel, Justin Kinney, Terrence Sejnowski, Tom Bartol, Daniel Johnston, Kristen Harris, and Chandrajit Bajaj. VolRoverN: Enhancing surface and volumetric reconstruction for realistic dynamical simulation of cellular and subcellular function. *Neuroinformatics*. 12(2):277-289. 2014.
4. Sidharth Kumar, John Edwards, Peer-Timo Bremer, Aaron Knoll, Cameron Christensen, Venkatram Vishwanath, Philip Carns, John A. Schmidt, Valerio Pascucci. Efficient I/O and storage of adaptive resolution data. *High Performance Computing, Networking, Storage and Analysis (SC14)*. New Orleans, LA, November 2014.
5. John Edwards and Chandrajit Bajaj. Topologically correct reconstruction of tortuous contour forests. *Computer-Aided Design*. 43(10):1296-1306. 2011.

Additional Publications and Research Software

1. Boyd Edwards and John Edwards. Dynamical interactions between two uniformly magnetized spheres. European Journal of Physics, 38(1):015205, 2016.
2. John Edwards, Sidharth Kumar, and Valerio Pascucci. Big data from scientific simulations. In L. Grandinetti, G.R. Joubert, M. Kunze, and V. Pascucci, editors, *Big Data and High Performance Computing*, pages 32–46. IOS Press, Amsterdam, Berlin, Tokyo, Washington, DC, 2015.
3. John Edwards, Wenping Wang, and Chandrajit Bajaj. Surface segmentation for improved remeshing. *Proceedings of the 21st International Meshing Roundtable*, pages 403-418. San Jose, CA, October 2012.
4. *MagPhyx* - Magnet simulation software
   `http://www2.cose.isu.edu/~edwajohn/MagPhyx`
5. *VolRoverN* - Neuronal reconstruction and geometric analysis
   `http://www.cs.utexas.edu/~bajaj/cvcwp/?page_id=2089`

Synergistic Activities

1. **Program committee:** International Conference on Geometric Modeling and Processing (GMP) 2015, 2016, 2017, 2018. **Reviewer:** GMP 2015, 2016, 2017, Computing Surveys, Computer Aided Geometric Design, European Symposium on Algorithms 2014, International Meshing Roundtable, SIGGRAPH Asia 2015. **Session chair:** Idaho Academy of Science and Engineering Annual Meeting, 2016.
2. **Neuroscience:** Attended competitive NIH BRAIN Initiative Summer Course on interdisciplinary computational neuroscience, July 2016.
3. **Outreach:** Acted as faculty advisor to student-led Google igniteCS high school outreach workshop series to Blackfoot High School, Spring 2017. Faculty advisor to Google igniteCS/Idaho STEM Action Center middle school outreach workshop series to eight local middle schools, Fall 2017.
4. **Teaching:** Development and delivery of undergraduate courses on graphics, compilers, operating systems; graduate course on advanced algorithms. 2013-2016. Teaching Innovation Grant for Introductory Computer Programming course, 2017.
5. **Advising:** Selected undergraduate students advised in research projects: Nathan Morrical (now at UofU) - Parallel GVD; Marko Sterbentz (now at USC) and Galen Cochrane - Lidar data collection and analysis; Jonathan Glines (now at NVIDIA) - Bird flocking analysis.