

Biographical Sketch

John M. Edwards, Assistant Professor

Utah State University

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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 |
|--------------|---------------------------------|---|
| 2018-Present | Assistant Professor | Utah State University, Logan, UT |
| 2015-2018 | 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 Products

1. John Edwards, Erika Fulton, Jonathan Holmes, Joseph Valentin, David Beard, and Kevin Parker. Separation of syntax and problem solving in Introductory Computer Programming. IEEE Frontiers in Education. San Jose, CA. October 2018.
2. Boyd Edwards and John Edwards. Dynamical interactions between two uniformly magnetized spheres. European Journal of Physics, 38(1):015205, 2016.
3. *Phanon* - CS1 educational software. (Note: currently being rebranded from 3PIO to Phanon). <http://3pio.cose.isu.edu>
4. *MagPhyx* - Magnet simulation software
<http://edwardsjohnmartin.github.io/MagPhyx>

Additional Products

1. DeWayne Derryberry, Ken Aho, John Edwards, and Teri Peterson. Model selection and regression t-statistics. *The American Statistician*. In press. 2018.
2. Nathan Morrical and John Edwards. Parallel quadtree construction on collections of objects. *Computers and Graphics*. 66:162168. 2017.
3. 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.
4. 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.
5. 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.

Synergistic Activities

1. **Program committee:** International Conference on Geometric Modeling and Processing (GMP) 2015, 2016, 2017, 2018. **Reviewer:** *ACM SIGCSE 2019, IEEE Frontiers in Education 2018*, 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. **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.
3. **Teaching:** Development and delivery of undergraduate courses on graphics, compilers, operating systems; graduate courses on advanced algorithms and data science. 2013-2016. Teaching Innovation Grant for Introductory Computer Programming course, 2017.
4. **Advising:** Joseph Ditton (Master's) - CS1 education. Selected undergraduate student 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.
5. **Applicable workshop:** NSF Developing Empirical Education Research Studies (DEERS). Charlottesville, VA. 3rd cohort. July 17-19, 2018.