

Bio Sketch: James Abello received the PhD degree in Combinatorial Algorithms from the University of California, San Diego, and the MS degree in Operating Systems from the University of California, Santa Barbara. He is the recipient of a University of California President's Postdoctoral Fellowship in Computer Science and has been recognized with teaching awards here at Rutgers (2016 Best Teaching award in our Department) and previously at the University of California, Santa Barbara. James has been mentor for 47 undergraduate students in the DIMACS REU Program and for 17 graduate students in Computer Science.

James is the co-editor of External Memory Algorithms, Vol. 50 of the AMS-DIMACS series (with J. Vitter, 1999), The Kluwer Handbook of Massive Data Sets (with P. Pardalos and M. Resende, 2002), and Discrete Methods in Epidemiology (with Graham Cormode, 2006). He is founding member of the newly created International *Culture Analytics Network* supported by The Danish Council on Independent Research. He holds US patent 6781599 (with J. Korn from Google) on a "System and Method for Visualizing Massive Multidigraphs".

James research focus has been on Algorithms and Data Structures, Massive Data Sets, Algorithm Animation and Visualization, Combinatorial and Computational Geometry, Discrete Mathematics, and some applications in Petroleum Engineering and Epidemiology. He has co-authored 79 papers that include publications in Communications of the ACM, IEEE Transactions in Computer Graphics and Visualization, Theoretical Computer Science, Algorithmica, Discrete and Computational Geometry, SIAM Journal of Discrete Math, and Australasian Journal of Combinatorics. Recently, James was awarded the 2017 Test of Time Award by the European Symposium on Algorithms and has been invited to deliver the corresponding key note in ESA2018 to be held in Helsinki (August 2018).

James has lead the development of software systems like: MGV (A Massive Graph Visualizer, with J. Korn from Google), AGE (An Animated Graph Environment, with T. Veatch from the University of Toronto), Mirage (An Interpreted Language for Algorithm Animation, with C. Smith), A Quasi-Clique Extractor (with S. Sudarsky from Siemens Research - US), Graph View (with F. Van Ham from IBM - Netherlands), and CGV (with Christian Tominski from the University of Rostock, Germany).

James has been the Chair of 1 PhD Committee (Dr. Krishna Kumar) and has been member of 5 PhD Thesis Committees and 12 Master Thesis in Computer Science. He has been an invited speaker to several international and national research venues and has been a member of a variety of Conferences Program Committees.

James has held several academic positions and has been a senior member of technical staff at AT&T Shannon Laboratories, Bell Labs, and Senior Research Scientist at Ask.com. He is currently the director of the Master Program in Computer Science here at Rutgers and conceived, designed, and made operational a new Professional MS Degree in Data Science that was launched in fall 2017 that he is Co-directing. Previously, for eight years, James has been a DIMACS Research Professor. He is currently a Co- PI on an NSF collaborative research grant titled: Human-Computer Graph Tele-discovery and Exploration, (Total Award Amount: \$1,200,000 Period Covered: 11/1/16-10/31/20; Co-PI's: J. Abello (CS, Rutgers) and D. Chau (CS, Georgia Tech)).

Information about some of James's research projects can be obtained by accessing <http://www.mgvis.com>
