Curran Kelleher

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github.com/curran/portfolio
774 437 9956

EDUCATION

Ph. D. in Computer Science
University of Massachusetts Lowell, MA (December 2014)
Documents at github.com/curran/phd

Master of Science in Computer Science, GPA 3.74
University of Massachusetts Lowell, MA (December 2012)

Bachelor of Science in Computer Science with Bioinformatics, GPA 3.38
University of Massachusetts Lowell, MA (December 2010)
Study Abroad year at Technische Universität Darmstadt, Germany, 2008

TECHNOLOGY SKILLS

JavaScript, HTML5 Graphics (D3.js, Canvas, WebGL), Angular.js, Backbone.js, CoffeeScript, Node.js, MongoDB, WebSockets, Java, Spark, Clojure, BASH, Python, C#, CUDA, SQL, SPARQL, Linux.

EXPERIENCE

Software Engineer
Alpine Data Labs, San Francisco, CA (February 2015 - present)

- Designing and developing an Open Source Big Data visualization platform
- Integrating interactive visualizations in the Alpine Analytics product
- For more details see github.com/curran/chiasm

Teaching Assistant
University of Massachusetts Lowell, MA (January 2012 - December 2014)

- GUI Programming I and II (Fall 2013, Spring 2014)
  - Taught several advanced lectures and helped design assignments
- Computer Graphics II (Spring 2013)
- Introduction to Algorithms (Spring 2013)
- Computer Graphics I using OpenGL ES (Fall 2012)
- Foundations of Computer Science (Spring 2012)

Data Visualization Intern
Rapid7, Cambridge, MA (June - August 2013)

- Designed and developed an interactive visualization dashboard with multiple linked views for UserInsight, a new Rapid7 cybersecurity data analysis product (D3, Leaflet.js).

Teacher
Teacher Massachusetts Institute of Technology (MIT) HSSP, Cambridge, MA (July - August 2013)

- Designed and taught a seven-session course on JavaScript and interactive graphics

Teacher
Massachusetts Institute of Technology (MIT) Junction, Cambridge, MA (July - August 2012)

- Designed and taught a 52-hour course for high school students on HTML5 graphics

Software Engineer and Research Assistant
Institute for Visualization and Perception Research (IVPR)
University of Massachusetts Lowell, Lowell, MA (June 2005 - January 2012)

- Developed algorithms for automated pedigree layout (family history trees)
- Co-project manager of the Weave project, oversaw server side development
- Contributed to the book "Interactive Data Visualization" by Ward, Grinstein and Keim
- Authored JyVis, an open source interactive visualization platform (Java, Python, Groovy)
- Authored utilities for named entity aggregation and full text search (Java, Lucene)
- Worked with a team of four to develop a visual document management system in C#
- Implemented session history recording and replay in the Universal Visualization Platform

Guest Researcher
Data Analysis and Visualization Group
University of Konstanz, Germany (June - August 2010, June - August 2011)

- Designed and prototyped a technology for dissemination and integration of data cubes
- Worked on interactive data cube visualizations

Software Engineer and Research Assistant
Computer Graphics Center (ZGDV), Darmstadt, Germany (October 2007 - August 2008)

- Designed and implemented software for overlaying hairstyles on face pictures (Java)
- Real-time motion tracking, visual hull reconstruction and pose estimation with CUDA

Teacher
Massachusetts Institute of Technology (MIT), Cambridge, MA (July - August 2007)

- Co-taught an 8-week course with Justin Curry, entitled "Gödel, Escher, Bach: A Mental Space Odyssey". Lecture videos available on MIT OpenCourseWare.

Software Engineer and Research Assistant
New England Complex Systems Institute (NECSI), Cambridge, MA (January - June 2006)

- Developed a visualization and simulation platform for earth-wide socioeconomic dynamics (Java)

Research Assistant
University of Massachusetts Medical School, Worcester, MA (June 2004 - June 2005)

- Assisted researchers with biological experiments investigating the role of RNAi components in drosophila (fruit fly) embryonic axis specification and related phenomena

PUBLICATIONS

- Curran Kelleher, Haim Levkowitz. “Reactive Data Visualizations”. Visualization and Data Analysis Conference, San Francisco, CA. February 2015
- Curran Kelleher. “Visualizing the Universal Data Cube”. Doctoral Dissertation, University of Massachusetts, Lowell, MA. December 2014
- Haim Levkowitz, Curran Kelleher. “Cloud and mobile Web-based graphics and visualization”. IGI Global “Encyclopedia of Information Science and Technology”. 2013
- Haim Levkowitz, Curran Kelleher. “Cloud and mobile Web-based graphics and visualization”. Tutorial at SIBGRAPI, Ouro Preto, Brazil. 2012
- Brian Drohan, Curran Kelleher, Georges Grinstein, Kevin Hughes. “Assessing Risks for Families with Inherited Cancers”. Visual Analytics in Healthcare, IEEE VisWeek. October 2011
- Curran Kelleher, Georges Grinstein. “Fractal Perspective Visualization Technique for Semantic Graphs”. 15th International Conference on Information Visualisation. London, UK. July 2011
- Curran Kelleher, Georges Grinstein. “JyVis - A Flexible High Level Visual Analytics Framework”. University of Massachusetts Technical Report. 2007
- Howard Goodell, Chih-Hung Chiang, Curran Kelleher, Alex Baumann, Georges Grinstein. “Collecting and Harnessing Rich Session Histories” Tenth International Conference on Information Visualisation. London, UK. 2006
- Howard Goodell, Chih-Hung Chiang, Curran Kelleher, Alex Baumann, Georges Grinstein. “Metrics for analyzing rich session histories”. BELIV. Venice, Italy. 2006

AWARDS

- 2013 P.M. Raj Scholarship for Excellence in Computer Science
- 2011 Open Source Software World Challenge Certificate of Achievement
- 2011 UMass Lowell Computer Science Department Outstanding Graduate Student Award
- 2009 UMass Lowell Computer Science Merit Scholarship for Excellence in Computer Science
- 2008 Technische Universität Darmstadt Scholarship of Excellence

ADDITIONAL

- github.com/curran/portfolio - full portfolio with links to code
- github.com/curran/screencasts - video lectures
- Play bass and guitar in President Soup (listen to our 2010 album or 2013 album “Gumbo”)
- President of the UMass Lowell Computer Science Graduate Student Organization (CSGSO) September 2012 to May 2013
- IEEE Member
- Wrote a book on my year abroad in Germany (2008 - 2009)