

Curran Kelleher



EDUCATION

- **Ph. D. in Computer Science**
University of Massachusetts Lowell, MA (December 2014)
- **Master of Science in Computer Science**
University of Massachusetts Lowell, MA (December 2012)
- **Bachelor of Science in Computer Science with Bioinformatics**
University of Massachusetts Lowell, MA (December 2010)
Study Abroad year at Technische Universität Darmstadt, Germany, 2008

SKILLS

Data visualization design and development, Web technologies, project management, teaching.
Primary tools: D3.js, React, Node.js, AWS, Linux.

EXPERIENCE

Founder & CEO

Datavis Tech, INC (February 2016 - present)

- Founded the company Datavis Tech, INC <https://datavis.tech>
- Provided custom data visualization consulting services
- Created <https://vizhub.com/> in 2018, continue to maintain and develop the product
- Developed a number of open source works found at <https://vizhub.com/curran>

Capabilities and Insights Analytics Expert

McKinsey & Company (January 2022 - January 2023)

- Helped build the Data Visualization Lab core team and define its working models
- Designed and developed of interactive data visualization works in collaboration with others
- Worked on a variety of public-facing interactives for McKinsey.com, also client-facing projects
- Managed and mentored engineers and designers new to data visualization

Lead Design Technologist

Stamen Design (August 2020 - October 2021)

- Visualization design and engineering lead across a variety of client projects
- Some degree of project management including delegation of work to contractors
- Feedback-driven iteration of visual products for clients using Scrum and Kanban methodologies
- Primary technologies used: D3, React, Mapbox, Figma, AWS

Adjunct Teaching Professor

Worcester Polytechnic Institute (August 2018 - present)

- Developed and delivered curriculum for graduate level data visualization course

- Ran the online data visualization course every Fall for 4 years
- Developed and iterated VizHub.com as a platform for use in teaching the course

Software Engineer

Alpine Data Labs, San Francisco, CA (February 2015 - February 2016)

- Designed and developed a Data Visualization platform for Alpine's Big Data Analytics product
- Integrated D3.js-based visualizations with Hadoop and Spark based data management software
- Helped organize and run Meetups, gave meetup talks & educational lectures

Teaching Assistant

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

- Graded student assignments, held office hours, occasionally lectured in place of Professor
 - GUI Programming I and II (Fall 2013, Spring 2014)
 - Computer Graphics I and II (Fall 2012, Spring 2013)
 - Introduction to Algorithms (Spring 2013)
 - 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), Cambridge, MA

- (July - August 2013) Designed and taught a seven-session course on interactive graphics, part of the [HSSP](#) program, covering basic JavaScript and using HTML5 Canvas.
- (July - August 2012) Designed and taught a 52-hour course for high school students on [HTML5 graphics](#), part of the [Junction](#) program, covering interaction, fractals, and complex systems.

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