

## EDUCATION

University of California, Davis

Ph.D. Computer Science (Area: Data Visualization, HCI, Data Science), 09/2014 - *Present*

B.S. Electrical and Computer Engineering, 2009

## RESEARCH EXPERIENCE

**Graduate Researcher, VIDI Lab, University of California, Davis**, Advisor: Dr. Kwan-Liu Ma, 09/2014 - Present

- Research and develop interactive visualization libraries that achieved 20X speedup for processing and visualizing big data, published in the premier visualization journal and conference (TVCG 2018 and InfoVIS 2019).
- Design and build custom analytic systems with machine learning and interactive visual interfaces for big data analysis.
- Programming & Tools: JavaScript, Python, WebGL, Scikit-Learn, Spark, Dask, Kubernetes.

**Visiting Researcher, Alibaba Inc., Hangzhou, China**, Mentor: Dr. Zhiyu Ding, 06/2017 - 07/2017

- Developed interactive systems for facilitating collaborative data analysis and visualization, established for long term collaboration and published at EuroVis 2018 and 2020.
- Worked with data scientists and software engineers to design product features and develop research prototypes.
- Programming & Tools: JavaScript, D3.js, Vue.js, GraphQL.

**Research Assistant, DOE ASCR CODES-VIS Project**, Mentor: Dr. Misbah Mubarak, 01/2015 - 06/2018

- Worked with scientists at Argonne National Lab to develop tools for co-designing next generation supercomputers.
- Designed and implemented scalable data pipelines to process, analyze, visualize, and monitor streaming data.
- Incorporated unsupervised learning methods (dimension reduction, time-series clustering, and change pointer detection) with interactive visual interfaces for analyzing HPC applications, published at Cluster 2017 and VDS 2019.
- Programming & Tools: Python, Scikit-Learn, C/C++, MPI, Flatbuffers, Docker.

## WORK EXPERIENCE

**Full Stack Software Developer, PaperSet**, Concord, CA 06/2018 – 03/2020

- Trained RNN models for entity recognition and information extraction from scientific publications.
- Created intelligent tools that leverage machine learning and NLP to highlight important texts in research papers.
- Programming & Tools: JavaScript, Vue.js, Node.js, Firebase, GCP, TensorFlow, Keras

**Software Engineer, Violin Memory Inc.**, Santa Clara, CA 04/2013 – 06/2014

- Maintained the management software and added new features for monitoring PCIe SSD products in data centers.
- Implemented automation to collect, analyze, and report performance data from various storage I/O benchmarks.
- Programming & Tools: C/C++, Javascript, Python, MySQL, Jenkins

**Validation Engineer, Supermicro Inc.**, San Jose, CA 04/2010 – 03/2013

- Developed automated test frameworks for validating firmwares and hardware on server motherboards and systems.
- Programming & Tools: Shell, Python, C/C++, SQL, Linux, KVM, VMware ESXi

## SELECTED PUBLICATIONS

[see all 16 publications at <https://jpkli.github.io/#/publications>]

- **Jianping Li** and Kwan-Liu Ma. "P5: Progressive Parallel Processing Pipelines for Interactive Data Analysis and Visualization." IEEE Transactions on Visualization and Computer Graphics (Proc: InfoVis), 2019.
- **Jianping Li** and Kwan-Liu Ma. "P4: Portable Parallel Processing Pipelines for Interactive Information Visualization." IEEE Transactions on Visualization and Computer Graphics, 2018.
- **Jianping Li**, et al. "Visual Analytics Techniques for Exploring the Design Space of Large-Scale High-Radix Networks." IEEE International Conference on Cluster Computing (CLUSTER), 2017.