Li, Jianping (Kelvin)

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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 automations 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.*