C. Zak Jost

2756 Accomac St., St. Louis, MO, 63104
(314) 593 – 8568
zjost85@gmail.com / www.zakjost.com

Summary

An experienced engineer and technical researcher looking for big data analytics opportunities.

Relevant Experience/Skills

- Programming/analysis in: R, Python, MATLAB/Octave, JavaScript, PowerPivot, DAX, C/C++
- Understanding of and experience with MapReduce/Apache Spark.
- Proficiency with a variety of database types: SQL (PostgreSQL), NoSQL (MongoDB, Cassandra)
- Advanced and deep understanding of statistics and mathematics.
- Machine Learning: neural networks, model selection, SVM, clustering, regression...etc
- Expert in Design of Experiment and statistical analysis/hypothesis testing
- Extensive engineering experience in an environment where careful data gathering and analysis are critical for diagnosing problems.

Professional Experience

Research Scientist in Layer Transfer R&D
SunEdison Semiconductors/MEMC, *Nov 2014 – May 2015*

- Develop next generation technologies and processes where *Angstroms* matter by careful design of experiment and data analysis

Process Engineer for Silicon on Insulator semiconductor materials.
SunEdison Semiconductors/MEMC, *June 2011 – Nov 2014*

- Project manager of new multi-million dollar tool install and qualification
- Became a *go-to* guy for data analysis and visualization.

Education

PhD candidate, Physics University of Missouri – St. Louis, *In Progress, started May 2014*

- Research project on ant optimization models for distributed computing.
- Passed PhD Qualifying exam

Masters of Science, Physics – GPA of 3.9 University of Missouri – St. Louis, *2011*

- Researched hydrogen storage materials in nanoporous-confined carbon resulting in co-authorship of two publications. Aided experimentation with modeling.

Bachelors of Science, Physics – GPA of 4.0 University of Missouri – St. Louis, *2008*

- Completed several research projects with funding from NASA Space Grant and local industry. A combination of modeling and material characterization.
- Graduated from the Pierre Laclede Honors program and won several awards/scholarships in a variety of contexts (essay, chemistry, physics, teaching).

Publications and Presentations

Controlling the Decomposition Pathway of $LiBH_4$ via Confinement in Highly Ordered Nanoporous Carbon. Mazjoub, E. H.; Liu, X; Jost, C. Z.; Peaslee, D.; *J. Phys. Chem. C* **2010,** *114,* 14036.

Systematic Pore-Size Effects of Nanoconfinement of $LiBH_4$: Elimination of Diborane Release and Tunable Behavior for Hydrogen Storage Applications. Mazjoub, E. H.; Liu, X; Jost, C. Z.; Peaslee, D.; Baumann, T. F.; *Chem. Mater.*, **2011**, *23 (5)*, pp 1331–1336.

Comparision of Spot and Wide Beam Implanters for Making SOI Wafers by Layer Transfer. Usenko, A; Jost, C. Z.; *Conference: 20th International Conference on Ion Implantation Technology IIT 2014*. Portland, OR.