Shuo Yang

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Education

University of Arizona — *Tucson, Arizona USA*

M.S. in Computer Science, GPA: 3.18 — *Aug. 2014 - May. 2017*

University of St. Thomas — *St. Paul, Minnesota USA*

M.S. in Software Engineering, GPA: 3.8 — *Aug. 2011 - May. 2014*

Harbin Institute of Technology — *Harbin, Heilongjiang China*

B.E. in Electrical Engineering — *Aug. 2004 - May. 2008*

Experience

Metropia, Inc. — *Tucson, Arizona USA*

Software Engineer — *Dec. 2017 - Present*

- Build robust, lasting, and scalable web service based software products which support Metropia's routing, prediction, and payment modules.
- Perform code reviews and ensure exceptional code quality.
- Evaluate the technical tradeoffs of every decision.

University of Arizona — *Tucson, Arizona USA*

Research Assistant for ANTARES project — *Aug. 2014 - Aug. 2015, Aug. 2016 - Mar. 2017*

- Designed and implemented Python API for astronomical alert data manipulation, using MySQL as DB backend.
- Built the provenance data view system with Django and MySQL.
- Worked on various components of ANTARES system, including data injection, alert simulator and alert packet format specification.
- Managed the dedicated CentOS cluster; designed and built the autoconfiguration and bootstrap system using Puppet and Vagrant.

University of Arizona — *Tucson, Arizona USA*

Teaching Assistant for CS460: Database Systems — *Fall 2015 & Spring 2016*

- Held office hours; graded programming and written assignments; prepared solutions for written assignments.
- Designed and evaluated final course project "Database-driven Web Application" using Oracle, Tomcat and JSP.

University of St. Thomas — *St. Paul, Minnesota USA*

Student Researcher for Neural Modeling in Hadoop project — *Aug. 2013 - May. 2014*

- Developed a new design pattern for graph algorithms in MapReduce and implemented a large scale neural network model in MapReduce.
- Re-implemented the model with Apache Giraph (made use of vertex-centric in memory computation), improved performance by 60% compared to the MapReduce implementation.

Danfoss Power Solutions — *Plymouth, Minnesota USA*

Software Engineer Intern — *June. 2012 - May. 2013*

- Migrated the legacy software (written in C) to the new hardware platform with other team members and conducted unit testing.
- Improved overall software quality using static code analyzer FlexeLint, identified and corrected several vulnerabilities existed in the legacy code.
- Built a tool (in Python) for summarizing, indexing and querying large volume of warning messages produced by FlexeLint.

Beijing Farsight Technology and Information — *Beijing, China*

Embedded Software Engineer & Training Assistant — *July. 2009 - July. 2011*

- Developed Linux device drivers and applications (in C) for various ARM platforms (ARM 9, 11 & Cortex-A8).
- Prepared training materials and instructed trainees in their lab sessions and final design project.

Platomix Technologies. (Start-up company) — *Beijing, China*

Software Engineer — *Feb. 2009 - July. 2009*

- Joined the team that built the initial prototype for Samsung's Remote Test Lab (RTL).
- Developed a multi-threaded program (in C++) for RTL device (Linux smartphone) to handle requests from RTL clients.

Publication

Yang S, Spielman ND, Jackson JC, Rubin BS. Large-scale neural modeling in MapReduce and Giraph. In IEEE International Conference on Electro Information Technology. IEEE Computer Society. 2014. p. 556-561. 6871824. Available from, DOI: 10.1109/EIT.2014.6871824

Skills

Languages	C/C++, Python, Java, SQL, Shell, HTML, R, MIPS Assembly
Data/Databases	MySQL, SQLite, Oracle, MongoDB, HBase, Hive, Pig
Operating Systems	Linux/Unix, Mac OSX
Platforms/Libraries	Hadoop, Giraph, Pthreads, MPI, Django
Tools	LaTeX, Emacs, Eclipse, Git, Vagrant, Puppet, Chef, Jupyter