Shuo **Yang**

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Summary

Looking for a job as a Software Engineer. 8 years of programming experience with C/C++, Python and Java, specializing in system programming and backend/infrastructure. Proficient in Relational Database Management Systems, especially MySQL. Experienced with Big Data technology such as Hadoop and Hive. Good exposure to NoSQL databases such as MongoDB and HBase.

Skills

Languages	C/C++, Python, Java, SQL, Shell, HTML, R
Database Systems	MySQL, SQLite, Oracle, MongoDB, HBase
Operating Systems	Linux/Unix, Mac OSX
Frameworks	Hadoop, Hive, Giraph, Pthreads, MPI, MapReduce, Django
Tools	LaTeX, Emacs, Eclipse, Git, Vagrant, Puppet, Chef

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

University of Arizona — *Tucson, Arizona USA*

Research Assistant with Dr. Richard Snodgrass on ANTARES project — *Aug. 2014 - Aug. 2015, Aug. 2016 - Mar. 2017*

- Designed and implemented the Python API for astronomical alert data manipulation, using MySQL as DB backend.
- 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.
- Analyzed and improved the performance of ANTARES data processing pipeline; researched data provenance.

University of Arizona — *Tucson, Arizona USA*

Independent Study with Dr. Beichuan Zhang on Named Data Networking (NDN) project — *Spring 2016 & Fall 2016*

- Researched consumer-driven congestion control mechanisms in NDN.
- Implemented TCP-like congestion control algorithms in NDN consumer (in C++), specifically, TCP RENO, CUBIC and VEGAS.

University of Arizona — *Tucson, Arizona USA*

Teaching Assistant with Dr. Lester McCann on CS460: Database Systems — *Fall 2015 & Spring 2016*

- Held office hours; graded programming and written assignments; prepared solutions for written assignments.
- Designed the final project “Database-driven Web Application” using Oracle, Tomcat and JSP; evaluated students’ design and implementation.

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

Student Researcher with Dr. Brad Rubin and Dr. Jadin Jackson on project: Neural Modeling in Hadoop — *Aug. 2013 - May. 2014*

- Researched graph processing in Hadoop.
- Implemented the neural network with both MapReduce model and vertex-centric model (using Apache Giraph).

Danfoss Power Solutions — *Plymouth, Minnesota USA*

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

- Migrated the legacy software to the new hardware platform with other team members and conducted unit testing.
- Built a backend tool (in Python) for indexing and querying large volume of messages produced by static code analyzer FlexeLint.

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

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

- Being part of a team that built the initial prototype for Samsung’s Remote Test Lab (RTL), I was responsible for the development on RTL device.
- Implemented the communication protocol (in C++) between RTL device (LiMo platform) and RTL proxy.
- Developed a daemon process (in C++) for RTL device to handles requests from proxy, in order for RTL client to remotely control the device.