

Shuo Yang

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Education

University of Arizona

M.S. IN COMPUTER SCIENCE, GPA: 3.5

Tucson, Arizona USA

Aug. 2014 - May. 2017

University of St. Thomas

M.S. IN SOFTWARE ENGINEERING, GPA: 3.8

St. Paul, Minnesota USA

Aug. 2011 - May. 2014

Harbin Institute of Technology

B.E. IN ELECTRICAL ENGINEERING

Harbin, Heilongjiang China

Aug. 2004 - May. 2008

Academic Experience

University of Arizona

Tucson, Arizona USA

RESEARCH ASSISTANT WITH DR. RICHARD SNODGRASS ON ANTARES PROJECT

Aug. 2016 - Mar. 2017

- Deployed ANTARES system (software for processing alerts generated by astronomical time-domain survey) to the dedicated CentOS cluster.
- Analyzed and improved the performance of ANTARES system.
- Designed and proposed the data provenance framework for ANTARES to answer provenance questions that astronomers would ask.
- Designed the packet format specification for alert data and implemented the simulator for generating alert streams.

University of Arizona

Tucson, Arizona USA

RESEARCH ASSISTANT WITH DR. RICHARD SNODGRASS ON ANTARES PROJECT

Aug. 2014 - Aug. 2015

- Designed and implemented the database used by ANTARES, as well as the web front-end for querying data produced by ANTARES pipeline using Django and MySQL.
- Designed, implemented and documented the Python API for astronomical alert data manipulation.
- Designed and built the bootstrapping system to run ANTARES pipeline in a pseudo-distributed mode using Vagrant and Puppet.

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. Evaluated and studied the performance of each of them in the context of NDN.

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

Aug. 2013 - May. 2014

- We initiated the project "Large-scale Neural Network Modeling with Hadoop" to explore the use of big data technologies in computational neuroscience and I was responsible for investigating graph processing in Hadoop.
- Implemented the neural network with MapReduce model in Hadoop.
- Implemented the neural network with vertex-centric model using Apache Giraph in Hadoop.

Work Experience

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.
- Applied static code analyzer FlexeLint to the legacy software written in C.
- Built a tool (in Python) for summarizing, indexing and querying large volume of warning messages produced by FlexeLint.
- Improved overall software quality, identified and corrected several vulnerabilities existed in the legacy code.

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).
- Assisted training instructors in preparing training content and developed technical how-to documents for ARM and Embedded Linux training.
- Instructed trainees in their lab sessions and final design project.

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 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.