NING WANG

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Education Background

Georgia Institute of Technology (GT) — Atlanta, Georgia
M.S. in Electrical and Computer Engineering, GPA: 3.9/4.0 — *Aug.2014–Present*

Wuhan University of Technology (WUT) — Wuhan, China
B.E. in Automotive Engineering, Overall GPA: 3.9/4.0, Graduation with Honors — *Sept.2010–Jun.2014*

National Taiwan University (NTU) — Taipei, Taiwan
Undergraduate research internship in Department of Bio-industrial Mechatronics Engineering — *Jul.2013–Aug.2013*

Work Experience

Software Development Engineer Intern at Amazon.com, Inc. — Seattle, Washington
Kindle Test Automation and Build Team — *May.2015-Present*

- Integrated Kindle rendering framework using C++ STL and Boost library
- Developed an online book previewer using Django, jQuery, HTML, CSS
- Followed test driven development process and deployed application to internal servers

Recent Projects

GTThreads - A User Level Threads Library (C, Linux) — *Sept.2015*

- Implemented a user level threads library with the same interfaces as POSIX Threads
- Realized a pre-emptive threads scheduler by using alarm signal as timer
- Solved the classical Dining Philosopher problem with the GTThreads library

Procedural Content Generation for MOBA game (Pygame, Scikit-Learn) — *Mar.2015-Apr.2015*

- Developed a tower defense game with customized difficulty
- Used Linear Regression to learn the player model and Simulated Annealing to optimize game levels

Real-time Weather Monitoring (Spark, DynamoDB, Kafka, Django) — *Mar.2015-Apr.2015*

- Implemented Kalman filter in Spark to do weather monitoring and forecasting
- Integrated a Kafka consumer with Spark to do stream data processing
- Published results to DynamoDB and displayed them with Django web application

C/C++ Simulators for High Performance Computer Architecture (C, C++) — *Oct.2014-Dec.2014*

- Created a simulator for cache with victim cache and prefetcher
- Built a simulator for an out of order superscalar processor using Tomasulo Algorithm
- Implemented several cache coherence protocols on top of a simulator for shared-memory machines

Programming Languages & Skills

- Coding: C++ (2 years), C (5 years), Python (2 years), Java (2 years), Objective-C (1 year), Bash (1 year)
- Library & Frameworks: STL, Boost, Pthread, MPI, OpenMP, Thrift, Django, Flask, jQuery, Node.js
- Tools: Vim, Git, Make, GDB, valgrind, tmux, Xcode, Eclipse
- Data Analytics Skills: Hadoop, Kafka, Storm, DynamoDB, MySQL