Jiangchuan He

CONTACT INFORMATION
08E Flickinger Ct
Amherst, NY 14228
Tel: (716) 604-7268
Email: jiangchu@buffalo.edu

EDUCATION

M.S., Computer Science, University at Buffalo **Sep.2013-Dec.2014(expected)**
GPA:3.3/4.0
Coursework: Algorithm Analysis and Design, Machine Learning, Pattern Recognition, Operating System, Distributed System, Fundamental of Programming Language

B.E., Software Engineering, Sichuan University **Sep.2009-Jun.2013**
GPA:3.3/4.0
Coursework: Discrete Mathematics, Data Structure, Database Systems, Computer Architecture, System Programming, Computer Network

HONORS AND AWARDS

Chinese Sciences Cup(National Top 13 teams) **Sep.2011**
Oracle ThinkQuest Competition(Global Top 10% teams) **Jun.2012**

WORKING EXPERIENCE

Willow Ridge Civic Association. **Sep.2014-Current**
IOS Developer Intern
- Designed an IOS app to support community activities.

GSK CNC Equipment Co., Ltd. **Jun.2010-Aug.2010**
Software Engineer Intern
- Learned to use **ARM Cortex-M3** processor and STM32 development board.
- Successfully porting **x86 μC/OS** kernel to ARM Platform.
- Developed a two-axis **machine tool control software** based on **STM32F103 development board**, which was awarded in Undergraduate Final Project.

Sichuan Hwadee Information and Technology Co., Ltd. **Jun.2012-Aug.2012**
Web Developer Intern
- Designed and Implemented a House-Selling Website.

PROJECTS

Mouse and Keyboard Sharing Application **Feb.2011**
- Designed a **Windows MFC** Application which allows user to control multiple computers in a group using one mouse and keyboard device.
- The features included directly dragging **files** among screens and **clipboard** data sharing.
- I was the major designer responsible for creating **application structure** as well as implementing the features mentioned above.

Concurrent Programming in Java and SML **Sep.2013**
- Designed and implemented several **different granularity locks** and analyzed their locking performance.
- Implemented Fibonacci servers, events and mailboxes using **Concurrent ML(CML)**.

Harvard OS/161 Kernel Implementation **Feb.2014**
- Developed a **multicore** operating system kernel which runs on MIPS r2000 simulator.
- The work included implementing **Synchronization Primitives**, **System Calls** and **Process Support**, **Virtual Memory** which supports **swapping**.
- Used **Git** to manage source code and **shell scripts** to improve efficiency.
- Built everything from the beginning and completed all the test cases.

Pen-gesture Recognition with Hidden Markov Models **Apr.2014**
- Designed **spatial clustering** algorithm to extract observation sequences.
- Implemented **Hidden Markov Model** and used it to give prediction with almost 90% correct rate.
- Designed and implemented prediction algorithm also using **Dynamic Time Warping** and **Viterbi decoding**.

Amazon Dynamo(Distributed Key-Value Storage) **May.2014**
- Created a Dynamo-style **key-value storage** using five Android Emulators.
- Implemented the functionality of **partition**, **replication** and **failure handling**.

COMPUTER SKILLS

Language: x86 and Thumb Assembly, C/C++, Java, Shell Script, Python, Javascript, HTML, CSS
Tools: Vim, Eclipse, Visual Studio, μVision, LaTeX
Operating System: Mac OS X, Linux, Windows, μC/OS