# Jiangchuan He

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**EDUCATION**

**M.S., Computer Science, University at Buffalo**  Sep.2013-Dec.2014
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

**IMPRESSIVE PROJECTS**

**OS161 Kernel Implementation**
- Designed Synchronization Primitives, System Calls and Process Support, Virtual Memory which supports swapping.
- Used Git to manage source code and collaborate with parnter.
- Built everything from startup and completed all the test cases.

**Distributed Hash Table Implementation**
- Implemented a Dynamo-style distributed hash table using 5 android emulators.
- The program supports all Dynamo functions such as partition, replication and failure handling.

**Gesture Recognition using Hidden Markov Model**
- Used Spatial Clustering to extract observation sequences.
- Implemented Hidden Markov Model and used it to give prediction with almost 90% correct rate.

**HONORS AND AWARDS**

**Oracle ThinkQuest Competition(Global Top 10%)**  Jun.2012
We implemented a windows application which allows user to control multiple computers in a group using one mouse and keyboard device. The features include directly dragging files among screens and clipboard data sharing. I am the major designer responsible for implementing application structure as well as the features mentioned above.

**Chinese Sciences Cup(National Top 13 teams)**  Sep.2011
We designed and implemented the early version of the multiple computers mouse and keyboard sharing application. I launched this project in windows MFC framework. I designed several key tricks such as using transparent window and global hook to capture interactive messages.

**WORKING EXPERIENCE**

**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 $\mu$C/OS kernel to ARM Platform
- Implemented a two-axis machine tool control program based on STM32F103 development board, which helped me gain the excellent award in my Undergraduate Final Project.

**Sichuan Hwadee Information and Technology Co., Ltd.**  Jun.2012-Aug.2012
*Web Developer Intern*
- Designed and Implemented a House-Selling Website.
- My task was to write and test front end.

**COMPUTER SKILLS**

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