# Liang (Charlie) Li

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# Experience

# Signal Integrity Engineer Intern

Cisco System, San Jose, CA

May. 2015 - Dec. 2015 (Expected)

Characterized high speed signal quality in link layer and physical layer for Cisco core router/switch products

Performed statistical analysis of high speed signal for IC from different vendors

Shortened the time of manual tests and improved data processing speed using Python with re, developed an auto timesheet generator in Outlook using Python

### Graduate Research Assistant

### ECE Dept. MST

Aug. 2013 - May. 2015

Developed a numerical model and software for FCC regulation test using Matlab, delivered software to Huawei as main developer Studied different heuristic optimization algorithms to model radiation of electronic device

Published 3 papers to IEEE international symposium and delivered 2 presentations

# Software Developer Intern

#### H3C, Wuhan, China

Sep. 2012 - Jan. 2013

Participated in Comware PPPoE Server development project which developed Point-to-Point protocol over Ethernet (PPPoE) on H3C Comware distributed platform. Including kernel architecture and user space design Completed parsing commands in CLI interface using C/C++

### **Projects**

# **TCP Congestion Control**

#### **Course Project**

Oct. 2011 - Dec. 2011

Developed a flash demo to show two TCP congestion control algorithms used in TCP/IP protocol

Implemented Reno and Tahoe algorithms using Flash Actionscript

Link: http://leeo1116.github.io/TCP congestion control/TCP.html

# **Customizing Linux System**

#### **Course Project**

May. 2012 - Aug. 2012

Customized Linux kernel and file system with specified functionality and limited system size

Built a Linux system from CentOS 3.2.18 source code with kernel less than 3MB and file system RAMDisk less than 24MB System supported booting from flash drive, multi-user login, accessing Windows partition and SSH

#### **Operating System Algorithms Simulation**

#### **Course Project**

May. 2012 - July 2012

Simulated process, memory and storage management algorithms using C++ console program

Implemented algorithms including FCFS, Shortest job first, Priority based scheduling, LRU, FIFO etc.

Implemented banker's algorithm with GUI using MFC in Microsoft VS2008

#### Website Development

#### Freelancer

June. 2015 - Sep. 2015

Developed a website for ontheway project using Django framework in Python

Implemented both front-end and back-end using HTML/CSS, JavaScript, Bootstrap, MySQL

Link: <a href="http://ontheway.ml/">http://ontheway.ml/</a> (Alternate link: <a href="http://leeo1116.webfactional.com/">http://leeo1116.webfactional.com/</a>)

### Skills

Web Development

Misc Technologies

Proficient in Python, Familiar with HTML/CSS, Django, MySQL and Bootstrap Programming language C/C++, Python, Matlab, R, Flash Actionscript, Visual Basic, Verilog, Assembly Git/Github, Regular Expression, SVN, Linux, TCP/IP, MapReduce, Web Crawler

### Education

### Missouri University of Science and Technology (University of Missouri - Rolla)

Aug. 2013 - Present

M.S. Electrical and Computer Engineering GPA 4.0/4.0

### Huazhong University of Science and Technology

Sep. 2009 - May. 2013

B.S. Electrical and Computer Engineering GPA 3.8/4.0

#### Related Coursework

Data Structure and Algorithm Computer Networking Digital Image Processing

Advanced Programming Language Operating System Principle and Design of Embedded System Data Mining Principle of Microcomputer and System Design Regression Analysis

### Awards and Additional

Best student paper award in 2015 IEEE EMC&SI symposium

Full fellowship as research assistant

Outstanding academic performance scholarship×2, China

National encouragement scholarship, China, 3%

Certified Network Engineer (National Qualification Certificate of Computer and Software Technology Proficiency P.R. China)