



Xiupeng (Matthew) Ma

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Education

University of Illinois at Urbana-Champaign (UIUC), IL, U.S.A.	12/2015
Master in Computer Science	GPA: 4/4
China Agricultural University (CAU), Beijing, China	07/2012
Bachelor in Computer Science and Technology	GPA: 3.78/4

Skills

Language:	Java, JavaScript, HTML, CSS
Framework/Lib:	jQuery, Node.js, Backbone.js, HighCharts, Hogan.js, Mustache.js, Sea.js
Database:	MySQL, SQL Server
OS:	Mac OS X, Linux, Windows
IDE/Editor/Others:	Eclipse, VIM, Visual Studio, IntelliJ IDEA, Sublime Text, Fiddler, Git
Certification:	Red Hat Certified Engineer & System Administrator (#120-153-291)

Work Experience

Teaching Assistant of Cloud Networking, UIUC, USA **01/2015-05/2015**

- Be helping build the Cloud Networking branch of Massive Open Online Courses of UIUC
- Be taking the lean on designing the programming assignments and auto-graders, to help students understand key concepts of cloud networking

Software Development Intern, Sogou.com, Beijing, China **05/2013-09/2013**

- Designed and implemented a validation framework that automates the front-end validation of user input in web pages (Project Homepage: <https://github.com/RocShow/validator.js>)
- Defined a library with 31 rules to enrich the validation framework
- Developed a monitoring system for an existed CRM system to study user behavior and improve user experience
- Improved a jQuery plugin, MultiSelect, by fixing bugs and adding new features
- Wrote several reports on the company's internal Wiki to discuss technical problems

Research Assistant, Lab of Computer Vision, CAU, China **01/2012-06/2014**

- Road extraction and detection from high-resolution remote sensing images
 - Identified and formulated the big data problem in high-resolution remote sensing images
 - Solved the big data problem via Baidu Cloud Platform and decreased the processing time from 20 minutes per image to less than 2 minutes
 - Implemented algorithm of road extraction and detection by using C++ and OpenCV.
- Early Warning System for Sudden Natural Disaster sponsored by Ministry of Agriculture of China
 - Developed a web-based data collection, transmission and process system for image data of corps, robust to various weather conditions
 - Implemented digital image processing algorithm for feature detection and measurement
 - Applied statistical machine learning algorithms for data fusion and classification

Independent Projects

UIUC Course Registration System Assistant as a Chrome plugin

- Implemented a chrome plugin to simulate tedious repeated mouse clicks required in the original system in order to make it easy to get to some popular pages quickly
- Wrote a monitor component to track course status periodically, and notify users via email once certain course was available to register

English Study Toolbox

- Developed a single-page web application to automatically schedule English study plan, based on Ebbinghaus Curve
- Wrote an add-on to fetch CNN Student News videos and corresponding subtitles.
- Implemented the toolbox with Backbone.js for front-end page, PHP for RESTful API, and MySQL for database, based on MVC structure



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Course Projects

Pseudo TCP over UDP (CS438 Computer Networks, UIUC) 09/2014 – 12/2014

- Implemented TCP features including reliable transmission, congestion control and flow control in application layer over UDP
- Ensured compatibility with real TCP, that it was able to evenly share channel with real TCP
- Ensured high performance, that it was able to fully utilize an empty channel

iTrust (CS412 Software Engineering, UIUC) 09/2014 – 12/2014

- Added eight new features to iTrust, an open-source medical application developed by NCSU
- Worked as developing leader within a group of seven students.
- Did Extreme Programming (XP), including Planning Game, Pair Programming, Test Driven, Refactoring, etc.

Leadership & Activities

- Volunteer for Global Mobile Internet Conference, Beijing 05/2014
- Teaching Assistant of C++ Programming Language 03/2013 - 07/2013
- Leader of National Undergraduate Training Programs for Innovation and Entrepreneurship, CAU 04/2012 - 05/2014
- President of CAU Computer DIY Association, CAU 09/2010 - 09/2011
- Vice President of CAU Computer Association, CAU 09/2010 - 09/2011
- Website Administrator of National Field Station for Agricultural Ecosystem, China 03/2009 - 06/2014

Awards

- Outstanding Graduate Award (Top 5%), CAU 2012-2013
- Academic Excellence Award (Top 5%), CAU 2010-2011
- Scholarship for Outstanding Work for Student Group, CAU 2009
- Third Prize in National Physics Olympiad, China 2007