

Xiupeng (Matthew) Ma

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Education

University of Illinois at Urbana-Champaign (UIUC), IL, US	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

Back-end: C, C++, Java, Node.js
Front-end: JavaScript, HTML, CSS (SCSS), jQuery, Backbone.js, HighCharts, Hogan.js, Mustache.js...
Database: MySQL, MongoDB
IDE/Editor/Others: Eclipse, IntelliJ IDEA, Xcode, Visual Studio, VIM, Sublime Text, Fiddler, Git
Certification: Red Hat Certified Engineer & System Administrator (#120-153-291)

Work Experience

Web Developer Intern, Sogou.com, Beijing, China	05/2013-08/2013
<ul style="list-style-type: none">Designed and implemented a validation framework with JavaScript that automates the front-end validation of user input in web pages (Project Homepage: https://github.com/RocShow/validator.js)Developed a monitoring component for an online web platform to study user behavior and to help improve user experience. (Java, Backbone, HighCharts, Mustache, jQuery)Improved a jQuery plugin, MultiSelect, by fixing bugs and adding new featuresWrote several reports on the company's internal Wiki to share development experience	
Teaching Assistant of Cloud Networking, UIUC, USA	01/2015-05/2015
<ul style="list-style-type: none">Help design and prepare the Cloud Networking course of Massive Open Online Courses of UIUCTake the lead on designing the programming assignments and auto-graders	
Research Assistant, Lab of Computer Vision, CAU, China	01/2012-06/2014
<ul style="list-style-type: none">Road extraction and detection from high-resolution remote sensing images<ul style="list-style-type: none">Identified and formulated the big data problem in high-resolution remote sensing imagesSolved the big data problem with <u>divide and conquer</u> thinking, obtaining 90% speed improvementImplemented algorithms of road detection and extraction with C++ and OpenCVEarly Warning System for Crop Growth (sponsored by Ministry of Agriculture of China)<ul style="list-style-type: none">Developed a <u>web-based</u> data collection, transmission and process system to monitor growth of cropsApplied <u>cluster</u> and <u>classification</u> algorithms to find out abnormal data and early warning problems	

Course Projects

iTrust (CS412 Software Engineering, UIUC)	09/2014-12/2014
<ul style="list-style-type: none">Added eight new features (e.g. event notification, appointment management) to iTrust, an open-source medical application developed by NCSU based on MVC architecture and JavaWorked as a team leader within a group of seven studentsDid Extreme Programming (XP), including <u>Reverse Engineering</u>, <u>Planning Game</u>, <u>Pair Programming</u>, <u>Test Driven</u>, <u>Refactoring</u>, etc.	
Pseudo TCP over UDP (CS438 Computer Networks, UIUC)	09/2014-12/2014
<ul style="list-style-type: none">Implemented TCP features including reliable transmission, congestion control and flow control in application layer over UDP (<u>Socket Programming with C</u>)Ensured high performance and compatibility with real TCP	

Independent Projects

English Study Toolbox	
<ul style="list-style-type: none">Developed a <u>single-page web application</u> to automatically schedule English study planWrote an add-on to fetch CNN Student News videos and corresponding subtitles with <u>Regular Expression</u>Implemented the toolbox with <u>Backbone.js</u> for front-end, <u>AJAX</u> and <u>JSON</u> for data transmission, <u>Java</u> for <u>RESTful API</u>, and <u>MySQL</u> for database	
UIUC Course Registration Assistant as a Chrome Extension	
<ul style="list-style-type: none">Developed a chrome extension that simulates user actions to make the system more convenient to useWrote a monitor component to track course status periodically, and register automatically once the course was available	