Shiqian Jesse XU

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EDUCATION

North Carolina State University (NCSU)	**Raleigh, NC**
M.S. in Computer Engineering, Overall GPA: 4.0/4.0	*Aug. 2014 – Dec. 2015 (Expected)*
Shanghai Jiao Tong University (SJTU)	**Shanghai, China**
B.S. in Electrical Engineering, Overall GPA: 3.5/4.0	*Sept. 2010 – Jul. 2014*

RELEVANT COURSEWORK:

Design and Analysis Of Algorithms, Computer Networks, Object-Oriented Design and Development, Operating Systems Principles, Database Management concepts and Systems, Software Engineering, DevOps

KEY SKILLS

Computer Languages	Java, Python, Ruby on Rails, Nodejs, C++, C#
Database & Cache	MySQL, SQLite, Redis, MongoDB
Other tools	Jenkins, Docker, JUnit, Vagrant, SpringMVC, GitHub, Maven
Professional Skills	Fluent in Chinese, Interpretation Skills, Leadership, Volunteering

INTERN EXPERIENCE

Zhongxing Telecommunication Equipment Corporation   *Jul. 2013 – Aug. 2013*
Intern, Cloud computing & IT Institute
- Wrote test design specifications based on requirements and user stories.
- Performed testing cases to examine the products performance on the Cloud computing environment.
- Diagnosed problems and fixed issues of ZTE IRAI Cloud computing system.

ACADEMIC PROJECT

Continuous Integration pipeline and Continuous Delivery solutions (Docker, Jenkins,Node)
- Designed CI pipeline and CD to Canary and Production Server using Docker and proxy server.
- Deployed Jenkins build server on Amazon EC2 to run continuous test on every Github push and timely.
- Ran Behavior Driven Test and Static Analysis Tool on git hook to accept or deny a commit.
- Added Code Review into the pipeline whose review request will be auto-generated after successful builds.

Performance comparisons on SQL and NoSQL Database (Java, Mysql, MongoDB)
- Built up test environment for two databases using Spring framework and set up different DAO layers.
- Wrote insertion, query and deletion test cases on different databases to test single thread and multi threads performance.
- Tested and compared on data integration results with join table in SQL and nested structures in NoSQL.

Refactoring grades_controller Class in Expertiza (Ruby on Rails, OSS)
- Refactored methods on query of database in grades_controller.rb and improved the system performance up to 98%.
- Reduced the complexity of several methods by removing unnecessary instance variables and loops inside.
- Fixed bugs via RESTful principle and expedited page load speed by 15 times in Open Source Project.
- Improved Mailing feature for instructors and adjusted data loading pattern when rendering new web pages.

RESEARCH EXPERIENCE

Handover Technologies among Heterogeneous Networks on Smartphone   *Oct. 2012 – Jul.2014*
Research Assistant, Institute of Wireless Communication of SJTU   *(Android,Matlab)*
- Put forward a new Multiple Attribute Decision Making algorithm on vertical handover among heterogeneous networks based on QoS, Time Delay, Download Speed, Optimum Load Balance, User Moving Pattern and Neutral Network to optimize the customer experience.
- Demonstrated and compared simulation results with existing algorithm in MATLAB.
- Wrote software demos in Java and tested on Android platforms.

PATENTS& CERTIFICATE

- "**Vertical handover decision algorithms based on Load Balance and Multiple QoS Parameters**", Inventors: Shiqian **Xu**, Guoqing Yao, etc., Chinese Patent, CN103648129A, Issued Date: Mar. 19, 2014.
- Certificate for IBM Job Role Academic Initiative (Training for Java Programmer)