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Xiang Li

2410 Shakespeare Street, Unit 60,
Houston, Texas, 77030

Education

Rice University, Houston, Texas *Expected Dec. 2017*
Department of Computer Science
Master degree in Computer Science, in Computational Science and Engineering program
Major GPA: 3.7/4.0

Shanghai Jiao Tong University, Shanghai, P. R. China *Aug. 2016*
University of Michigan - Shanghai Jiao Tong University Joint Institute (UM-SJTU JI)
Bachelor degree in Computer Engineering
Major GPA: 3.5/4.0

Computer Skills

Programming Languages: Java, C, C++, Javascript, C#, Python, SQL, HTML/CSS
Platforms/Frameworks: Git, SVN, Vim, Node.js, React/Redux, Hadoop, Jenkins, MyBatis, MongoDB

Work Experience

Software Engineer Intern, Amazon Inc., Seattle, WA *May 2017 - Aug. 2017*

- Worked in a platform development team of order aggregation for all Amazon e-commerce customers
- Developed a dynamic invoker for all plugins that use Amazon's new RPC framework
- Contributed in modernizing our aggregation platform as well as simplifying debugging effort

Software Engineer Intern, Transwarp Technology, Shanghai, P. R. China *Feb. 2016 - Apr. 2016*

- Constructed an integrated test environment on Jenkins
- Designed connection methods for company's own Hadoop database with DBCP connection pool and ORM frameworks (Mybatis, Hibernate), along with supporting batch processing operations

Project Experience

Full-stack Web Development for an Online Social Network *Sep. 2016 - Dec. 2016*

- Front-end url: `https://renren.surge.sh` (supports Chrome best)
- Used React/Redux and Bootstrap to develop web pages (landing, main, and profile)
- Implemented an Express server on Node.js, connected to MongoDB, which supports authenticated login/logout and CRUD operations for profiles, avatars, articles, comments and followers
- Added user authentication (salting by hash, cookie), session management via Redis, third-party authentication via OAuth2, Passport(Facebook), and permanent image uploading via Cloudinary

Software for Distributed Printing Service, sponsered by *HP*, Team Leader *Sep. 2015 - Dec. 2015*

- Saved at least 70% print time for small companies, who meet large print jobs ($>$ 500 pages) but cannot afford expensive printers by fully utilizing existing normal printers simultaneously
- Handled issues including paper jam and paper fault, and supported customization function
- Coded in C# to accomplish computer-printer interactions, in around 2000 lines of codes

GIS-map-based Client-Server Game *Nov. 2016 - Dec. 2016*

- Created a game that players in each team move on a map to be together within certain rounds
- Designed lobby and team chat rooms, supporting real-time conversations based on Java RMI
- Implemented message passing in all communications (not using Java JMS), handling well-known and unknown commands from senders; achieved cmd-to-cmd communication for game processing

Operating system kernel and file system implementation *Jan. 2017 - May 2017*

- Wrote a unix-like kernel that support system calls including Fork(), Exit(), Delay(), etc.
- Implemtend a unix-like file system through a RPC framework

Selected Publications

Research interests in **computer networks** and **network security**

- **Xiang Li**, Mengyuan Li, Na Ruan, Fan Wu, and Jie Li, *"Efficient and Enhanced Broadcast Authentication Protocols based on Multilevel μTESLA"*, in Proceedings of the 33rd IEEE International Performance Computing and Communications Conference (IPCCC), Dec. 2014 (acceptance rate: 30%)
- Na Ruan, Lei Gao, Haojin Zhu, Weijia Jia, **Xiang Li** and Qi Hu, *"Toward Optimal DoS-resistant authentication in Crowdsensing Networks via Evolutionary Game"*, in Proceedings of the 36th IEEE International Conference on Distributed Computing Systems (ICDCS), June 2016 (acceptance rate: 18%)