

Zili Xiang

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EDUCATION

CORNELL UNIVERSITY

MPS IN INFORMATION SCIENCE | Graduated in May 2017 | GPA: 3.6 | Ithaca, NY

BS IN LANDSCAPE ARCHITECTURE | Graduated in May 2016 | GPA: 3.5 | Ithaca, NY

SHANGHAI JIAO TONG UNIVERSITY

MAJOR IN LANDSCAPE ARCHITECTURE Sep. 2011 - Dec. 2013 | Shanghai, China

EXPERIENCE

SOFTWARE ENGINEER | IBM SECURITY MAAS360

July. 2019 - Now | Blue Bell, PA

- Improved the performance and robustness from earlier product by adopting Netty framework
 - ◇ Better memory management with byte buffer and reference counting technique
 - ◇ Reduced network communication overhead and improved throughput by adopting event based asynchronous processing on network data
- Proposed and adopted containerization for load testing automation
 - ◇ Worked with the team on architectural design for the load testing framework
 - ◇ Created Dockerfile and build script for Docker image creation
 - ◇ Configured Docker network for inter-container communication
- Maintained a gateway to enable secure and reliable connection to enterprise resource on mobile device
- Designed and developed proxy client to connect to gateway via SOCK5
 - ◇ Realized validation against corporate authentication methods (LDAP or AD) before establishing connection with gateway over customized SOCKS5 initialization process
 - ◇ Implemented the mechanism utilizing asymmetric encryption to verify user identity
- Troubleshoot production issues from customers and released patches to solve customer issues

SOFTWARE ENGINEER | IBM CLOUD BILLING

Feb. 2018 - July. 2019 | Dallas, TX

- Maintained and optimized a billing batch system, which runs every day to generate invoice to bill customers
 - ◇ Created an audit tool to detect billing data anomalies and distribute heavy workload into sub-processes with zookeeper
 - ◇ Designed and implemented automatic error handling mechanism on the batch system
- Developed full stack on IBM Cloud IaaS infrastructure management system with PHP back-end and JavaScript front-end
 - ◇ Expanded capability of the system to support accounting personnel to gain visibility into the billing system and perform daily operations
 - ◇ Developed SOAP API to expand the capability of an MVC model based management system
 - ◇ Improved front end experience by implementing asynchronous requests with Ajax
 - ◇ Improved memory utilization on metric monitoring page (reducing memory consumption by 75%) by optimizing memory leaking code
 - ◇ Maintained business data with Oracle DB and managed DDL with a migration system

TEACHING ASSISTANT | INTERMEDIATE WEB PROGRAMMING

Jan. 2017 – May 2017 | Ithaca, NY

- Held weekly office hours helping with debugging JavaScript, PHP and SQL
- Prepared weekly discussion and taught back-end technologies (SQL, PHP, phpMyAdmin, JavaScript, jQuery, Ajax and HTML)

RELEVANT PROJECTS

COMPUTER GRAPHICS + PRACTICUM OpenGL(GLSL, WebGL) and Java

Jan. 2017 - May 2017 | Ithaca, NY

- Reduced running time complexity of ray tracing from $O(n^2)$ to $O(n \log n)$ by implementing KD tree algorithm
- WebGL related projects are up on **my website** as Water simulation and Maze Crawler

RELEVANT SKILLS

Java • Spring Boot • Gradle • Netty • Python • OpenGL (GLSL and WebGL) • PHP • CSS • HTML • SQL • JavaScript • Test Driven Development • Docker • Kubernetes • Rust