

Liang Yu

FULL STACK SOFTWARE ENGINEER

Boston, Massachusetts

☎ (617.901.0618) | ✉ yuliang.name@gmail.com

*"Green Card Holder, No Sponsorship Required, Relocation OK
Published iOS App 'TinBoston' in App Store"*

Skills

Programming: Java, Swift/SwiftUI, Objective-C, C/C++, Python, Shell, Lisp, Tcl, GDB, ~~TeX~~
Operating System: macOS, iOS, CentOS, Ubuntu, Red Hat
Networking: SIPp, Wireshark, EXFO, Zabbix, OpenSSL, OpenSSH
Web Development: REST, SOAP, Postman, MySQL, Tomcat, HTML5, Javascript, Flex, Dojo, Ajax, JSP, WAP
Cloud/Virtualization: AWS, Azure, VMWare ESXi, ServiceNow, Hadoop, MapReduce, Docker, Kubernetes
Development Tools: Xcode, Eclipse, PyCharm, IntelliJ IDEA, GIT, SVN, CI/CD, Jira, Kanban, Confluence, TestLink, Jenkins

Experience

Oracle | Senior (since 2019) Software Engineer in Test

Bedford/Burlington, MA

TUNNEL SESSION MANAGEMENT(TSM) PROJECT

6yr and 9mo. 2014.2 - 2020.11

- Served as the solo test personal in TSM project, the "go-to" person on TSM urgent issues. Documented 200+ defects, including critical ones affecting performance and capacity.
- Extended the test coverage of TSM SDK by 5 times and added 1000+ new automation test cases on iOS, Android and Linux platforms. Refactored the Tcl scripts into shared library for better reusability.
- Built on-premise testbed with Android phones, iPhones, multiple SBC, 20 Linux VMs across 5 X5-2 Servers and setup Zabbix tool to monitor the network connections and data packets.
- Coordinated resources across QA, Datapath and Application teams to ensure urgent defects were fixed and verified on schedule, and provided test guidance on customer-reported issues.

SBC SECURITY TEAM

- Tested two factor authenticatons for the configuration-enabled local users together with the factory accounts.
- Configured the remote AAA servers(TACAS+ and Radius) and tested authentication, authorization and accounting features.
- Be the first to write the Tcl scripts to automate the TACACS+ tests and write shell scripts to reproduce the customer's defect found in performace context.
- Helped the Dev to test the DDOS pretection feature in the SBC product.

SBC VIRTUALIZATION ON PRIVATE CLOUD AND PUBLIC CLOUD

- Deployed the virtualized SBC and Linux VMs on the AWS cloud and Azure cloud.
- Integrated the EXFO APIs into the Tcl scripts to decreased the weeks of mannual performance test effort to a couple of days and increased the usage of expensive test equipments in the night time.
- Brought the in-house made Anvil test framework in the public clouds and sovled the library dependency issues.
- Designed the networking diagram for the testbed on the clouds and shared it with tema via the confluence page.
- Did the performance and capacity Tests on the AWS, Azure and VMware platform.
- Tested teh SIP call between the AWS cloud and Azure cloud.

SBC REST INTERFACE

- Tracked the work progress in Scrum board in the Agile mode.
- Added hundres of test cases into automation testframe(RAID) to leverate the night time to run the daily regression test.
- Used the Postman App to test SBC Configuration APIs.
- Opened dozens of defects and helped developers to sort out their priorities and fix them.

Integrated Computer Solutions | Software Developers

Bedford, MA

TOPICS ANDROID GAME PROJECT

8mo. 2013.4 - 2014.2

- Implemented the APIs in Python and maintained the PostgreSQL database of the Topic Server.
- Leveraged the content provider to save data in SQLite DB and retrieve data to popluate the adapter.

INKARUS HTML5 AND JAVASCRIPT GAME PROJECT

- Implemented a function to synchronize the score and screenshot of the winner to Azure Cloud and retrieve data from the cloud by using WinJS library and HTML5.
- Added three advertisement banners in the GameOver page by leveraging the Microsoft Advertising SDK.
- Used the Windows Azure cloud to save the score and screenshot of the solutions and rendered data from cloud to users by using WinJS library and HTML5.

Acme Packet | Software Engineer Intern

Bedford, MA

APPLICATION SESSION CONTROLLER(ASC) TEAM

8mo. 2012.1 - 2012.8

- Developed the Call-Transfer web services application with Java, Dojo and GWT/GXT.
- Worked on Flex mobile application, fixed bugs and tested it on iPhone and iPad.
- Created VMs on the XenServer to run various SIP tests.
- Helped with ASC automated testing framework by writing twenty Python unit tests on SIP protocol
- Enhanced the quality of an existing iOS mobile application by fixing bugs and improved its UI and workflow by implementing good interface design principles.

Northeastern University

Boston, MA

ANALYZING COMPANY STOCK PRICES VIA TWITTER DATA

2yr. 2010.9 - 2012.12

- Processed 1.7 billions twitter messages and 50 millions stock records with Hadoop.
- Used Pig Scripts to sample of the twitter messages.
- Developed and debugged the program on a ten-node cluster in Java.

PORTING MTCP FROM LINUX TO MAC OS X 10.6

- Analyzed the implementation of MTCP under Linux and listed all the differences in Mac OS X.
- Probed the memory boundaries(stack, heap, data and text sections) of a process under Mac OS X, by using self-defined SIGSEGV handler and setlongjump call() in C.

SIMULATING OPERATING SYSTEM

- Experience in multi-processing programming in C.
- Wrote c codes to mimic the mirroring, string, RAID3 and RAID5 operations.
- Implemented a file system with methods like mkdir, rm, read, write and ls.

SCIENTIFIC COMMUNITY GAME PROJECT

- Wrote network-flow avator in Java and wrote unit tests to ensure it can be integrated into the existed SCG Arena.
- Used Jenkins Continuous Integration System to do the build automation.
- Used EcEmma to measure the test coverage in the SCG project.

Education

Northeastern University

Boston, MA

M.S. IN COMPUTER SCIENCE

2010.9 - 2012.12

- Program Design Paradigms in Lisp, Advanced Algorithms
- Computer System, High Performance Computing
- Parallel Computing in MapReduce, Managing Software Development in Java

Nanchang University

Nanchang, China

B.S. IN COMPUTATIONAL MATHEMATICS

2005.9 - 2009.6

- Assemble Language(IBM X86), C Programming Language, Data Structure in C, Introduce to Database