Liang **Yu**

FULL STACK SOFTWARE ENGINEER

Boston, Massachusetts

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"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, sed, awk, LATEX
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 performance and capacity issues.
- 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 and 20 Linux VMs across 5 X5-2 Servers, setup Zobbix tool to monitor the network connections and data packets.
- Coordinated resources across QA, Datapath and Application teams to ensure urgent defects were fixed and verifed on schedule, and provided test guidance on customer-reported issues.

SBC SECURITY TEAM

- Be the first to write the Tcl scripts to automate the TACACS+ test cases and reproduced the urgent customer defect in shell scripts.
- Configured the AAA servers (TACACS+ and Radius) and tested authentication, authorization and accounting features for configuration-abled local users and default factory accounts.

SBC VIRTUALIZATION ON PRIVATE AND PUBLIC CLOUD

- Deployed virtualized SBC and Linux VMs on the AWS and Azure cloud, led the effert to migrate the Anvil Test framework to the cloud.
- Integrated EXFO APIs into Tcl scripts to automate multiple performance test cases, decreased weeks of mannual test effort for different vm core combinations to a couple of days and increased the usage of expensive test equipments in the night time.
- Used SIPp tool to initiate SIP calls between SBC on AWS and Azure clouds, configured openssl certificates in SBC, veried the strong ciphers were used in the VOIP calls.

SBC REST INTERFACE

- Collaborated with Dev team in a fast-paced Agile enviroment, ensured code quality by leveraging TDD method.
- Served as the test expert to test the SBC configuration API with automation scripts and Postman tool, opened dozens of defects and provided guidance to sort out the priority

Integrated Computer Solutions | Software Developers   *Bedford, MA*

INKARUS HTML5 AND JAVASCRIPT GAME PROJECT   *8mo. 2013.4 - 2014.2*

- Implemented functions to synchronize the score and screenshot of the winner to Azure Cloud and retrieve data from the cloud with WinJS libraray and HTML5.
- Added three advertisement banners in the GameOver page by leveraging the Microsoft Advertising SDK.

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.
- Helped with ASC automated testing framework by writing test cases in Python.
- 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 Univeristy

Boston, MA

ANALYZING COMPANY STOCK PRICES VIA TWITTER DATA

2ryr. 2010.9 - 2012.12

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

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 mult-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 exsited SCG Arena.
- Used Jenkins Continuous Integration System to do the build automation.
- Used EclEmma 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
- Parall 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