

# YU, LIANG

Permanent Resident/Relocation OK      yuliang.name@gmail.com  
Published iOS App "TinBoston" in App Store      Boston 617.901.0618

## Full Stack Skills

---

Project: Agile, Scrum board, Kanban, Confluence, Jira, Slack  
System: macOS, Redhat, CentOS, Ubuntu, Unix  
Coding: Java, C/C++, Python, Lisp,  $\LaTeX$   
Scripting: Shell, Tcl, sed, awk  
Testing: GDB, LLDB, Postman, Jmeter, Testlink, Wireshark, Zabbix, SIPp, EXFO  
Mobile: iOS, Swift, SwiftUI, Objective-C, Android  
Web: Javascript, HTML, JSP, OpenSSL, OpenSSH  
Networking: REST, SOAP, VoIP, SIP, IPSec, NAT  
Backend: Nginx, Tomcat, Redis, MySQL  
Cloud: AWS, Azure, OCI, OpenStack, VMware  
DevOps: GIT/SVN, Docker, Kubernetes, CI/CD  
Tools: Xcode, Eclipse, PyCharm, IntelliJ IDEA, VIM, Homebrew

## Experience

---

### Oracle

Senior(since 2019) Software Engineer in Test

Bedford/Burlington, MA  
6yr and 9mo. 2014.2 - 2020.11

#### ✓ SBC Tunnel Session Management(TSM)

- Served as the solo test personal in this project, the "go-to" person on TSM urgent issues, documented 200+ defects, including critical performance and capacity issues.
- Improved coverage by 5 times more for TSM SDK by crafting 1000+ test cases and new automation scripts 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 Zabbix tool to monitor the network connections and data packets.
- Coordinated resources across QA, Developer teams to ensure urgent defects were fixed and verified 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 effort to migrate the Anvil Test framework to the cloud.
- Integrated EXFO APIs into Tcl scripts to automate multiple performance test cases, decreased weeks of manual 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, verified the strong ciphers were used in the VOIP calls.

#### ✓ SBC REST Interface

- Collaborated with Dev team in a fast-paced Agile environment, 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 Engineer

Bedford, MA  
11mo. 2013.4 - 2014.2

### ✓ Inkarus HTML5/Javascript Game Project

- Implemented the data synchronization between the Azure Cloud and the application running on the Windows 8 tablet.
- Implemented the advertisement feature on the GameOver page by leveraging the Microsoft Advertising SDK

## Acme Packet

Software Engineer Intern

Bedford, MA  
8mo. 2012.1 - 2012.9

### ✓ Application Session Controller (ASC) Team

- 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 University

Student

Boston, MA  
2yr. 2010.9 - 2012.12

### ✓ Analyzing company stock prices via twitter data

- 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.

### ✓ Probing Operation 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 EclEmma to measure the test coverage in the SCG project.

## Education

---

### Northeastern University - Boston, USA

2010.9 - 2012.12

M.S. in Computer Science

- Computer System ◊ High Performance Computing
- Parallel Computing in MapReduce ◊ Introduce to Database
- Managing Software Development in **Java**
- Program Design Paradigms in Lisp ◊ Advanced Algorithms

### Nanchang University - Nanchang, China

2005.9 - 2009.6

B.S. in Computational Mathematics

- Assembly Language(IBM X86) ◊ Foundation of Program Design in **C**
- Numerical Approximation ◊ Data Structure in **C** ◊ Discrete Mathematics