

# YU, LIANG

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

## Full Stack Skill Set

---

Programming:	Java, Swift/SwiftUI, Objective-C, C/C++, Python, Shell, Lisp, Tcl, GDB, sed, awk, $\LaTeX$
Operation System:	macOS, iOS, CentOS, Ubuntu, Red Hat, Android
Networking:	SIP/SIPp, Wireshark, EXFO, Zabbix, OpenSSL, OpenSSH, IPSec
Web Development:	REST, SOAP, Postman, Jmeter, MySQL, Tomcat, HTML5, Javascript, Flex, Dojo, Ajax, JSP, W
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

## Experience

### Oracle

Senior(since 2019) Software Engineer in Test

Bedford/Burlington, MA

6yr and 9mo.2014.2 - 2020.11

#### ✓SBC Tunnel Session Management

- 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 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

- 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 Enginner

Bedford, MA

8mo.2013.04 - 2014.2

#### ✓Inkarus HTML5 and Javascript Game Project

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

## Acme Packet

Software Enginner 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 Univeristy

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 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, USA

2010.09 – 2012.12

M.S. in Computer Science

- 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

2005.09 – 2009.06

B.S. in Computational Mathematics

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