Amogh Joshi

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Education

Stony Brook University — Stony Brook, USA
Master of Science in Computer Science; GPA: 3.67/4.0 — *Feb 2021 – Dec 2022 (Expected)*

Sri Jayachamarajendra College of Engineering — Mysore, India
Bachelor of Engineering; GPA: 8.75/10.0 — *Aug. 2015 – May 2019*

Relevant Coursework

Distributed Systems, Operating Systems, Network Security, Theory of Computation, Programming Abstractions, Human-Computer Interaction, and Logic in Computer Science

Programming Skills

Languages: Java, Python, Go, Javascript, C++, C, SQL, Shell scripting

Technologies: AWS, Docker, Kubernetes, Spring-Boot, Django, ElasticSearch

Experience

Associate Software Engineer — July 2019 - Dec 2020
LogMeIn — *Bangalore, India*

- Developed automation frameworks for testing GoToWebinar and GoToMeeting RESTful APIs using TestNG.
- Added end-to-end automation tests using Selenium Webdriver for GoToWebinar's Analytics SPA.
- Developed automation frameworks for testing mobile applications using Appium for both Android and iOS devices.
- Developed database release and deployment jobs and migrated existing database jobs from BuildForge to Jenkins.
- Developed and executed JMeter test plans for performance and load testing.
- Setup Wavefront and Splunk monitoring dashboards for GoToWebinar backend services.

Projects

Plugboard Proxy | Github
- Developed a "plugboard proxy" for adding an extra layer of protection to publicly accessible network services.
- The program was written in Go using the Crypto library.
- It adds an extra layer of encryption to connections towards TCP services.

CPU Profiler | Github
- Designed a CPU profiling tool as a kernel module which when loaded, keeps track of the time spent on the CPU for each task.

DNS Packet Injection and Detection | Github
- Developed an on-path DNS poisoning attack tool, and a passive DNS poisoning attack detector.
- Both tools were developed in Go using the GoPacket library.

Network Traffic Sniffing | Github
- Developed a passive network monitoring application written in Go using the GoPacket library.
- The program captures the traffic from a network interface in promiscuous mode (or reads the packets from a pcap trace file) and prints a record for each packet in its standard output, much like a simplified version of tcpdump.

Super Simple Distributed Shared Memory | Github
- Implemented "s2dsm", a distributed shared memory (user-level) program that supports a page-granule MSI protocol using userfaultfd.

Dexterous Trashbot | Github
- Developed an all-terrain robot to segregate garbage into five categories - glass, cardboard, metal, plastic, and paper.
- The robot uses deep learning for segregation and has a robotic arm for picking the object.

Certifications

AWS: Solutions Architect Associate

Coursera: Machine Learning, Deep Learning Specialization