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

Relevant Coursework

Distributed Systems, Network Security, Operating Systems, Theory of Computation, Programming Abstractions, Foundations of Human Computer Interactions, 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

- **Stony Brook University** — Stony Brook, USA
  Teaching Assistant — *July 2021 - Present*
  - Teaching assistant for the undergraduate subject CSE 214 Data Structures, which has about 100 students enrolled.
  - Holding office hours, recitations, grading assignments, and proctoring tests are among my responsibilities.
- **LogMeIn** — Bangalore, India
  Associate Software Engineer — *July 2019 - Dec 2020*
  - Developed automation frameworks for testing GoToWebinar and GoToMeeting 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**: 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**: 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**: 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**: 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**: Implemented "s2dsm", a distributed shared memory (user-level) program that supports a page-granule MSI protocol using userfaultfd.

Certifications

- **AWS**: Solutions Architect Associate
- **Coursera**: Machine Learning, Deep Learning Specialization