Gagan Deep Gopalaiah

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EDUCATION

University of California, San Diego — La Jolla, CA
Master of Science in Computer Science, GPA 4.0/4.0 — *Sept 2022 - Mar 2024 (Expected)*

Rashtreeya Vidyalaya College of Engineering — Bangalore, India
Bachelor of Engineering in Computer Science, GPA - 9.13/10.0 — *Aug 2015 – May 2019*

TECHNICAL SKILLS

Languages and Libraries: Python, Golang, JavaScript, Java, C/C++, SQL, HTML, CSS, React.js
Developer Tools, Databases and Frameworks: Git, Subversion, AWS, Azure, Docker, CircleCI, Terraform, Kubernetes; MySQL, PostgreSQL, DynamoDB, Elasticsearch, MongoDB; Node.js, Next.js, SpringBoot, FastAPI, gRPC;

PROFESSIONAL EXPERIENCE

Software Engineer Cloud Intern — Jun 2023 - Present
LitePoint — *San Diego, CA*
- Spearheading the development of a full-stack online tester demo application, involving the creation and deployment of web services on Azure. Enables sales team to demo IQFact+ wireless tester without physical shipments.
- Tech Stack - JavaScript, TypeScript, Python, Express.js, Next.js, Node.js, React.js, Azure Cloud, Docker, Kubernetes

Software Engineer - II — May 2021 – Jul 2022
Cisco Systems Inc. — *Bangalore, India*
- Developed and deployed an authentication and authorization framework for Cisco CX Cloud, which was adopted by multiple downstream teams and positively impacted over 100 customers. Integrated this framework with Okta to implement RBAC (Role-Based-Access-Control) and secure CX Cloud APIs with OAuth2.0 industry standard.
- Owned and designed backend services related to internal roles and resources. Developed RESTful Golang API endpoints as part of these services before hosting them on AWS.
- Tech Stack - Golang, Okta, OPA, Docker, AWS - DynamoDB, S3, SQS, Lambda, ECS, ECR

Software Engineer — Jul 2019 – Apr 2021
Cisco Systems Inc. — *Bangalore, India*
- Implemented new features and enhancements following Agile methodologies in Optimal Software Version Recommendation (OSVR) and the Business Critical Services (BCS) teams. Drove technical discussions across different teams for cross-functional features leading to faster and coherent requirement specifications.
- Tech Stack - Python, Java, AWS, FastAPI, Elasticsearch, Docker, CircleCI

RESEARCH EXPERIENCE

Graduate Research Assistant — Apr 2023 – Present
Systems and Networking Group, UC San Diego — *La Jolla, CA*
- Spearheaded the development of a sophisticated platform for scheduling autograder containers with a focus on carbon efficiency as a key member of the C3Lab (Carbonless Cloud Computing Lab).
- Tech Stack - Python, Bash Scripting, Docker, Kubernetes, PostgreSQL, MQTT, AWS - EKS, VPC, ECR, S3, IAM

ENGINEERING PROJECTS

Surfstore - Dropbox clone
- Built a robust file synchronization application in Go using a sophisticated key distribution system based on consistent hashing for optimal performance. Integrated the Raft consensus algorithm to ensure fault tolerance and reliability.

TCP Chat Server – GitHub
- Utilizing the Go and concurrent programming techniques including goroutines, developed a highly performant, multithreaded TCP chat server enabling multiple clients to connect, communicate, and participate in chat rooms.

LEADERSHIP AND TEACHING EXPERIENCE

Graduate Teaching Assistant — Sep 2022 – June 2023
University of California, San Diego — *La Jolla, CA*
- Served as a teaching assistant for CSE 110 Software Engineering and CSE 134 Web Client Languages courses, guiding 6 teams of 60 students through course projects. Additionally, I led lab sessions and office hours, providing focused instruction and support for software development assignments.