

# Gagan Deep Gopalaiah

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## EDUCATION

### University of California, San Diego

*Master of Science in Computer Science*

La Jolla, CA

Sept 2022 - Mar 2024 (Expected)

### Rashtreeya Vidyalaya College of Engineering

*Bachelor of Engineering in Computer Science, GPA - 9.13/10.0*

Bangalore, India

Aug 2015 - May 2019

## TECHNICAL SKILLS

**Languages:** Golang, Python, Java, C/C++, SQL, HTML, CSS, JavaScript

**Developer Tools:** Git, AWS, Docker, CircleCI, Terraform

## PROFESSIONAL EXPERIENCE

### Software Engineer - II

May 2021 - Jul 2022

*Cisco Systems Inc.*

*Bangalore, India*

- Worked on building an authentication and authorization framework for Cisco CX Cloud which was used by multiple downstream teams impacting over a 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.
- Conducted timely code-reviews within the team to ensure excellent code quality. Also wrote efficient unit-tests to maintain adequate code-coverage (above 85%) and fixed static-testing (SonarQube) bugs.
- Drove technical discussions across different teams for cross-functional features leading to faster and coherent requirement specifications.
- Tech Stack - Golang, Okta, OPA, Docker, AWS - DynamoDB, S3, SQS, Lambda, ECS, ECR

### Software Engineer

Jul 2019 - Apr 2021

*Cisco Systems Inc.*

*Bangalore, India*

- Developed RESTful APIs using the microservices architecture for Cisco CX Cloud. APIs were written in FastAPI (Python3) and Spring (Java) frameworks.
- Achieved 0 critical security vulnerabilities in the codebase by serving as the point-of-contact in the team for CSDL (Cisco Secure Development Lifecycle). Ensured GDPR compliance for European CX Cloud customers.
- Tech Stack - Python3, Java, AWS, FastAPI, Elasticsearch, Docker, CircleCI

## ENGINEERING PROJECTS

### CCTV Video Summarization

- Developed a tool to generate dense time-stamped summaries of CCTV footage having sparse information, based on motion detection and user-queries. Preprocessed the footage to extract and store optical flow-tubes in the database. Selected flow-tubes were then stitched onto a background using Poisson Blending. Achieved a temporal compression ratio of 4-7x in the results.
- Tech Stack - Python, OpenCV, PyQt, MongoDB

### Bank Database System

- Built a simulation of a banking website using Django and PostgreSQL. Added features such as depositing money, withdrawing money and taking loans. Built a UI for the banking website with HTML, CSS, JavaScript.
- Tech Stack - Python, Django, PostgreSQL

## LEADERSHIP AND VOLUNTEER ACTIVITIES

### Teaching Assistant

Sep 2022 - Present

*University of California, San Diego*

*La Jolla, CA*

- TA for CSE 110 Software Engineering course. Currently leading and managing 5 teams (50 students overall) in their course project. Conduct lab sessions where I teach and resolve issues about software development assignments.

### Tutor, Photographer

Oct 2015 - Mar 2020

*Sarayu Charitable Trust*

*Bangalore, India*

- Tutored 30 underprivileged children in Maths, Science and Computers. Made use of my photographs to prepare descriptive documents for fundraising.