

# Chaitra Boggaram

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## Education

### Santa Clara University

Expected Jun 2024

Master of Science in Computer Science and Engineering

GPA: 3.8

Relevant Coursework: Object-Oriented Design, Distributed Systems, Cloud Computing, Software Engineering, Artificial Intelligence

Teaching Assistant: Computer Networks (Winter 2023 - Present)

### Bangalore University

May 2016

Bachelor of Computer Applications

GPA: 3.6

Relevant Coursework: Database Management, Computer Networks, Data Structures and Algorithms, Web Development

## Professional Experience

### Software Developer, Frugal Innovation Hub

Jan 2024 - Present

- Developing Flutter application for client Sheer Love Rwanda NGO using Dart with Firebase for user authentication and database functions and designing application architecture using Figma

### Software Engineer, NXP Semiconductors

Jun 2020 - Jun 2022

- Developed Java Spring Boot microservices on AWS EKS, achieving 30% increase in application availability with ~99.95% uptime, through auto-scaling, cost-effective resource utilization, and Docker containerization
- Created an email click tracking system on AWS using Amazon SES, API Gateway, Lambda functions, and S3 storage, providing data-driven insights for analyzing phishing campaign engagement
- Implemented AWS CloudWatch for real-time monitoring and AWS IAM for enhanced security, achieving 25% reduction in security vulnerabilities through proactive alerting and compliance measures
- Orchestrated Golang microservices on Kubernetes with YAML files, achieving 20% reduction in performance-critical component response times
- Built C++ tool for parsing log files, extracting information, generating concise reports for system administrators and support teams
- Integrated Git for version control, led code reviews, orchestrated CI/CD pipelines with AWS Code Pipeline, and managed agile development with JIRA in cross-functional teams

### Junior Software Engineer, Tata Consultancy Services

Dec 2016 - May 2020

- Developed reusable PowerShell scripts to perform CRUD actions for Windows Active Directory deployments and operations
- Created unit testing using pytest framework for Python scripts, ensuring robustness and reliability of security features
- Contributed to full-stack web development of TCS internal app using HTML, CSS, React, and JavaScript for frontend, with Node.js for backend
- Integrated Power Automate for email notifications on identified vulnerabilities, resulting in 80% reduction in security threats with actionable guidance
- Created a multi-page DynamoDB application enabling GUI access for permissioned CRUD operations using Flask, JavaScript, Jinja templates, and Bootstrap for clean CSS design

## Projects

### Kubernetes Key-Value Store

Mar 2024 - Mar 2024

- Built Key-Value store on Kubernetes, employing Docker Containers within Minikube pods, utilizing the FastAPI web framework for API development, and incorporating Huey as REDIS queue and storage solution with replication and autoscaling features

### Crypto News Notifier (Pub-Sub)

Sep 2023 - Nov 2023

- Developed real-time cryptocurrency Pub-Sub news notifier in Python, integrated both custom broker and Kafka options for efficient message passing, added CoinCap API for live prices, facilitated message generation through Postman

### SmartNIC Powered Blockchain Infrastructure

Apr 2023 - Jun 2023

- Developed new infrastructure for blockchain application by multi-threading Proof of Work in C programming which utilized all cores of SmartNIC as well as leveraged its advantages of offloading and edge processing

### Plagiarism Detector for ChatGPT

Jan 2023 - Mar 2023

- Led team of 3 to craft GenAI-powered Flask application using Python, incorporating PyTorch and scikit-learn, NLTK Machine Learning modules for accuracy, invoked ChatGPT API completion for data comparison with 70% accuracy

## Skills

**Programming Languages & Web Technologies:** Python, Java, PHP, JavaScript, C, C++, Go, HTML5, CSS, JSON, Bootstrap 4.0

**Frameworks:** Flask, Django, React.js, Flutter, Spring, Angular

**Cloud & Virtualization:** Amazon Web Services, Microsoft Azure, Docker, Kubernetes, DevOps, CI/CD

**Other Tools:** Terraform, CloudFormation, Splunk, Agile, SDLC, Jira, Git, ServiceNow, Linux, Shell script, MySQL, MongoDB