

Chaitra Boggaram

California | (669) 292 8310 | cboggaram@scu.edu | chaitraboggaram.github.io | linkedin.com/chaitraboggaram

Education

Master of Science in Computer Science and Engineering

Expected Mar 2024

Santa Clara University

GPA: 3.8

Coursework: Distributed Systems, Cloud Computing, Artificial Intelligence, Object-Oriented Design, Software Engineering, Solutions Architecture and Cloud

Teaching Assistant: Computer Networks (Winter 2023 - Present)

Bachelor of Computer Applications

May 2016

Bangalore University

GPA: 3.6

Coursework: Database Management, Computer Networks, Data Structures and Algorithms, Web Development, Operating Systems, Computer Architecture

Professional Experience

Software Developer, SCU Frugal Innovation Hub

Jan 2023 - Present

- Developing Flutter application using Dart with Firebase for database functions and designing application architecture using Figma
- Enhanced user authentication with REST APIs using OAuth 2.0, Apache Kafka integration for student registration, and implemented Test-Driven Development (TDD) for 20% increase in response times
- Integrated Anthropic Claude (LLM) via AWS Bedrock in a Flutter app on AWS Amplify, generating contextual clues for adaptive student support, resulting in 25% increase in quiz completion rates and 15% improved student engagement

Software Engineer, NXP Semiconductors

Jun 2020 - Jun 2022

- Led Java Spring Boot microservices development on Docker containers, deployed on AWS EKS, achieving 30% increase in application availability with ~99.95% uptime via auto-scaling and cost-effective resource usage
- Mentored 2 interns through the software development life cycle to implement an email click tracking system with Amazon SES, API Gateway, Lambda functions, S3 storage, and Redis cache recovery, leading to 25% improvement in analyzing phishing campaign engagement
- Created CI/CD pipelines with AWS Code Pipeline, managed agile development with JIRA in 5 cross-functional teams, and utilized Git for version control and code reviews
- Built C++ tool for parsing log files, extracting information, generating concise reports for system administrators and support teams
- Orchestrated Golang microservices, generating YAML files, and deployed on Kubernetes for performance-critical components, achieving 20% reduction in response times across the distributed system
- Utilized AWS Lambdas for a microservices architecture, integrating React and TypeScript frontend with backend for 80% of application modules
- Developed translation logic using Python and Rust, optimizing data exchange with gRPC Go servers to achieve 40% reduction in processing time and 25% increase in translation accuracy
- Implemented Spring MVC Microservice with Elasticsearch, achieving 75% data recovery in on-premise to cloud ETL pipeline
- Optimized Postgres, and Cassandra databases, and optimized data structures, achieving 20% efficiency gain applicable to semiconductor testing

Junior Software Engineer, Tata Consultancy Services

Dec 2016 - May 2020

- Built DynamoDB (NoSQL) GUI app for secure CRUD operations, achieving 30% boost in data efficiency and 20% faster user response
- Developed Python scripts with Splunk's REST API to block ~100 weekly security threats, enhancing real-time protection
- Deployed Angular/AngularJS frontend, and Java 8 Spring REST web services, leading to 30% increased user engagement and 25% faster responses
- Created PyTest unit testing for Python scripts, ensuring a 20% increase in the reliability of security features
- Contributed Ruby on Rails API development, achieving 22% cut in database query time and boosting system scalability by 19% for Ticketing System
- Automated Windows Active Directory CRUD actions with PowerShell scripts, reducing workload by 30% and increasing efficiency by 25%
- Implemented full-stack development for the TCS app using HTML5, CSS, React.js, and JavaScript for the frontend, Node.js for the backend, and MySQL for the database, achieving a 25% boost in data processing efficiency
- Created email notifications via Power Automate for users on vulnerabilities, resulting in an 80% decrease in security threats with guidance

Projects

Kubernetes Key-Value Store

Mar 2024 - Mar2024

- 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

Plagiarism Detector for ChatGPT

Jan 2023 - Mar 2023

- Led team of 3 to create a Flask application using Python, HTML, CSS for plagiarism detection, incorporating PyTorch-based Machine Learning modules for accuracy, invoked ChatGPT API completion for data comparison with 70% accuracy
- Research paper accepted at 8th International Conference on Computer and Information Science and Technology

Skills

Programming Languages & Web Technologies: Python, Java, HTML5, CSS, Dart, C++, JavaScript, React.js, Node.js, Go, SQL, JSON, Bootstrap 4.0

Frameworks: Flutter, Firebase, Anthropic Claude (LLM), Java Spring Boot, FastAPI, Huey, Flask, PyTorch, gRPC, Spring, Angular, Apache Kafka

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

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