

Chaitra Boggaram

California | (408) 210-8460 | chaitraboggaram@gmail.com | chaitraboggaram.github.io | linkedin.com/chaitraboggaram

Education

Master of Science in Computer Science and Engineering Expected Jun 2024
Santa Clara University GPA: 3.8

Coursework: Distributed Systems, Cloud Computing, Artificial Intelligence, Object-Oriented Design, Software Engineering, Solutions Architecture and Cloud
Graduate Teaching Assistant: Computer Networks (Winter 2023 - Spring 2024)

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 2024 - Present

- Building Homework application using Flutter, integrating user authentication with OAuth 2.0, REST APIs, and Firebase database, incorporating Figma for application architecture
- Introduced Apache Kafka queues for asynchronous assignments processing, handling 100 assignments within 1-minute window reducing API timeouts by 80%, and enhance future processing scalability to handle up to 1,000 requests per second
- Integrating Anthropic Claude (LLM) via AWS Bedrock in a Flutter app on AWS Amplify for 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 to implement an email click tracking system with Amazon SES, API Gateway, AWS Lambda functions, S3 storage, and Redis cache recovery, resulting in 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, resulting in 35% reduction in time for system administrators and support teams on log analysis tasks
- Orchestrated Golang microservices on Kubernetes, reducing system response times by 15% and enhancing supply chain management efficiency without disrupting operations, thereby supporting business growth
- Implemented Spring Framework MVC microservice integrated with Elasticsearch, enabling 75% data recovery in on-premises to cloud ETL pipeline
- Optimized Cassandra and PostgreSQL by implementing query batching, materialized views, and indexing key columns, boosting analysis by 20%

Junior Software Engineer, Tata Consultancy Services Dec 2016 - May 2020

- Enhanced data transfer efficiency by 20% and reduced API response times by 15% by transitioning organization hierarchy view system to GraphQL
- Developed Python scripts using Splunk's REST API to block approximately 100 security threats weekly, saving 12 hours of manual effort each week
- Created PyTest unit testing for Python scripts, ensuring 20% increase in the reliability of security features
- 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 25% increase in data processing efficiency
- Created email notifications via Power Automate for users on vulnerabilities, resulting in 80% decrease in security threats with guidance
- Deployed AngularJS frontend, and Java 8 Spring RESTful web services, leading to 30% increased user engagement and 25% faster responses
- Built DynamoDB (NoSQL) GUI app for secure CRUD operations, achieving 30% increase in data efficiency and 20% faster user response
- Automated Windows Active Directory CRUD actions with PowerShell scripts, reducing workload by 30% and increasing efficiency by 25%

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

SmartNIC Powered Blockchain Infrastructure Apr 2023 - Jun 2023

- Designed and implemented new infrastructure for a blockchain application, utilizing multi-threading Proof of Work in C programming to fully harness the processing power of all cores in the SmartNIC, while leveraging its capabilities for offloading and edge processing.

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 scikit-learn, NLTK, 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, Elasticsearch

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, DynamoDB