

Chaitra Boggaram

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Education

Master of Science in Computer Science and Engineering

Expected Jun 2024

Santa Clara University

GPA: 3.8

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

Teaching Assistant: Computer Networks (Winter 2023 - Present)

Bachelor of Computer Applications

May 2016

Bangalore University

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
- Integrating Anthropic Claude (LLM) through AWS Bedrock within Flutter app deployed on AWS Amplify to dynamically generate contextual clues for students, enhancing the learning experience by providing adaptive support during quizzes and virtual sessions

Software Engineer, NXP Semiconductors

Jun 2020 - Jun 2022

- Led development of 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
- Spearheaded and mentored 2 interns to implement email click tracking system with Amazon SES, API Gateway, Lambda functions, and S3 storage, leading to 25% improvement in analyzing phishing campaign engagement
- Integrated Git for version control, led code reviews, orchestrated CI/CD pipelines with AWS Code Pipeline, and managed agile development with JIRA in 5 cross-functional teams
- Built C++ tool, processing 10,000+ log files, achieving 25% time reduction in data analysis for system admins and support teams
- Implemented JSON data handling and gRPC integration, achieving a 20% improvement in data transfer efficiency and 15% reduction in API response times, enhancing interoperability across diverse projects

Junior Software Engineer, Tata Consultancy Services

Dec 2016 - May 2020

- Built DynamoDB app with GUI for secure CRUD operations, achieving a 30% boost in data efficiency and 20% faster user response
- Contributed to TCS app full-stack development with HTML, CSS, React.js, and JavaScript for frontend, Node.js for backend. Implemented MySQL solution, achieving 25% boost in data processing efficiency
- Developed Python scripts with Splunk's REST API to block ~100 weekly security threats, enhancing real-time protection
- Enhanced security operations by 30% through Linux shell scripting and SQL queries, streamlining tasks such as USB blocking and website/application allow-listing for efficient data extraction and analysis
- Created PyTest unit testing for Python scripts, ensuring a 20% increase in the reliability of security features

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

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
- Research paper accepted at 8th International Conference on Computer and Information Science and Technology

Skills

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

Frameworks: Flutter, Firebase, Anthropic Claude (LLM), Java Spring Boot, FastAPI, Huey, Flask, PyTorch, scikit-learn, NLTK, gRPC

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