

SHIVA GANESH RAMAKRISHNAN

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EDUCATION

University of California, Santa Cruz

Santa Cruz, CA

Master of Science (Computer Science) (CGPA- 3.64/4)

Sep 2023 - Jun 2025

Coursework: Distributed Systems, Analysis of Algorithms, Artificial Intelligence, Applied Bayesian Statistics, Machine Learning

PSG College of Technology

Coimbatore, India

Bachelor of Technology (Information Technology) (CGPA- 9.1/10)

Aug 2017 - Jun 2021

Coursework: Python, Data Structures, Database Systems, Object Oriented Programming, Software Engineering, Big Data

TECHNICAL SKILLS

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

Cloud Platforms & Databases: AWS (EC2, S3, Lambda, API Gateway), Firebase, GCP, Openshift

Frameworks: Spring Boot, React, Node.js, Flask, Django

Tools: Git, Linux, Docker, Kubernetes, MySQL, MongoDB, PostgreSQL, Cassandra

Other: TensorFlow, PyTorch, Pandas, Jupyter Notebook, NumPy, Scikit-learn

Networking Tech & Protocols: TCP, UDP, Software Defined Networking (SDN), OSI, L2/L3/L4 protocols, OSPF, Mininet, Wireshark

PROFESSIONAL EXPERIENCE

SWE Intern, Juniper Networks, Cupertino, CA | Python (Flask), AWS (S3, Lambda, API Gateway)

Jul 2024 - Sep 2024

- Developed a **Slack bot** with RESTful APIs in **Python Flask** to automate MFA-based authentication for **AWS** access, reducing manual authentication time by 80%.
- Optimized backend log processing for 100,000+ log files per request, extracting only 5-10% of relevant log lines and automatically generating detailed reports.
- Engineered an **AWS S3**-based log export mechanism, overcoming boto3's 1MB data transfer limit by automatically uploading large log files and returning secure pre-signed URLs.
- Automated statistical reporting for 25+ organizations, generating insights on successful logins, failed attempts, new device joins, and unique MAC IDs for the NAC team.
- Reduced log analysis and retrieval time from 5+ minutes to under 60 seconds, significantly boosting engineering productivity and security monitoring.

Software Engineer, Citibank, Chennai, India | Javascript, Java (Spring Boot), Jenkins, Angular, Openshift

Jul 2021 - Aug 2023

- Migrated 15+ Fusion Commercial applications from **PCF** to **OpenShift** to optimize cloud and storage infrastructure for improved scalability and performance.
- Implemented **REST APIs** using **Spring Boot** and **Java**, integrating **Hibernate** and **PostgreSQL** to facilitate seamless communication with multiple backend services, reducing communication time by 8%.
- Streamlined release readiness by contributing to different automation tools to help with software deployment improving efficiency by 10-12%
- Debugged and validated **CI/CD** pipeline failures ensuring seamless deployment of services in production environments.
- Resolved critical bugs in 10+ **JavaScript**-based frontend features by collaborating with testers

Backend Developer Intern, AppViewX Technologies, Coimbatore, India | GoLang, Terraform, Swagger

Nov 2019 - Dec 2019

- Designed a straightforward **JSON** to **YAML** converter in **Go** and further transformed it into a **REST API**
- Crafted **Swagger** documentation for API. Worked on **Terraform** to perform **CRUD** operations on cloud resources

PROJECTS

PProofreader | Python, Flask, ArliAI (LLM), Slack Webhooks, GitHub API, Ngrok, Nginx, Docker

Mar 2025 - Current

- Devised an LLM agent, that automates pull request reviews by extracting code changes, generating LLM-driven feedback, and posting contextual suggestions directly on GitHub with real-time Slack notifications.

DecompileRISC | Python, Flask, React, Ghidra, RetDec, LLVM, OpenAI

Mar 2025 - Current

- Created DecompileRISC, an LLM-powered tool to translate RISC-V assembly into C++17, ensuring functional equivalence using Alive2 and fuzzing with Csmith

QuizMeUp | Python, Flask, React, OpenAI, Firebase

Jan 2025 - Feb 2025

- Built a full-stack online class platform featuring video lectures, user authentication, GPT-based Q&A, and automated grading with contextual feedback to enhance student learning.

JSON-to-XML Compiler | Python, JSON, XML, Lex, Yacc

Feb 2024 - Mar 2024

- Formulated a Python-based compiler using PLY to parse complex JSON input and compile it into well-formed XML, incorporating advanced parsing techniques and user-defined flags to handle duplicates

Weather Application | React

Jan 2024 - Feb 2024

- Modeled a dynamic weather application using React, integrating real-time weather data from OpenWeatherMap, geolocation detection, animated weather icons, and live time display for an enhanced user experience.