

RAMYA KRISHNAN

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EDUCATION

Master of Science in Computer Science (Artificial Intelligence)
University of Southern California, USA

Jan 2025 - Dec 2026

Bachelor of Technology in Computer Science
Vellore Institute of Technology, Vellore, India

Jul 2019 - Aug 2023
8.9/10

SKILLS

C++ / C
Python
React
HTML/CSS/ JavaScript

WORK EXPERIENCE

System/Software Engineer
Hewlett Packard Enterprise, Bangalore, India

Nov 2023 - Dec 2024

- **Strengthened Firmware Security:**

Analyzed and mitigated Common Vulnerabilities and Exposures (CVEs) on HPE Superdome Flex platform. Delivered robust security fixes and enhancements, fortifying system resilience in production environments. Addressed critical BIOS issues and improved firmware functionality through precise C programming, ensuring seamless integration and optimal performance.

- **Optimized Predictive Modeling:**

Developed and deployed advanced machine learning models, including Long Short-Term Memory (LSTM) networks, to predict critical server events. The approach minimized downtime by enabling proactive system maintenance and boosted overall reliability of operations.

- **Expanded Full-Stack Expertise:**

Increased technical scope by contributing to a React-based frontend project, delivering efficient and user-friendly interface solutions using React and couchbase.

INTERNSHIP EXPERIENCE

Research and Development Intern
Hewlett Packard Enterprise, Bangalore, India

Jan 2023 - Oct 2023

- Collected and analyzed key data from HPE sensors to monitor and track temperature changes in servers.
- Stimulated an auto-encoder model to detect significant spikes in temperature data, triggering alarms for spikes lasting over 60 seconds and issuing warnings for critical server states.
- Implemented LSTM algorithm to create a predictive model with 80% accuracy for evaluating server health and identifying potential issues immediately.
- Created predictive models on edge devices (microprocessors and microcontrollers), achieving 75% accuracy in predicting server failure times, focusing on early intervention and minimizing downtime.
- Contributed to a CI/CD pipeline project, developing a consolidated web-based dashboard integrating Grafana, Prometheus, and Jira, streamlining monitoring and incident management processes.
- Improved server problem analysis efficiency by at least 50%, leveraging real-time metrics and seamless integration across tools.

- Technical Skills and Tools:
 - Predictive Analytics (Auto-encoder, LSTM)
 - Edge Computing (Microprocessors, Microcontrollers)
 - CI/CD Pipelines
 - Monitoring Tools (Grafana, Prometheus)

Software developer Intern

May 2022 - July 2022

TVS Motors, Hosur, India

- Designed a bot to automate resolution of SAP user authorization issues, reducing administrative workload by over 50% through elimination of manual interventions.
- Collaborated with QA team to identify and implement necessary security validations, ensuring compliance with organizational standards and robust system protection.
- Deployed bot into production server after rigorous testing to ensure reliability and performance.
- Enabled bot to perform critical tasks such as unlocking password-protected user accounts, resetting passwords based on user-provided information, and automating email notifications to inform users of updated accessibility.

Key Achievements:

Streamlined SAP authorization issue management, enhancing efficiency and reducing resolution time.
Enhanced user experience with automated notifications and prompt issue resolution.

Core Competencies:

Process Automation (SAP Authorization Management)
Security Validation and QA Collaboration
Bot Development and Production Deployment
User Account Management And Notification Systems

ACADEMIC PROJECTS

News genre classification

6th semester, 2022

- Investigated feasibility of constructing various ANN and LSTM models to categorize headlines into approximately 15 categories, including business, entertainment, health, science, and technology.
- Built a hybrid model combining ANNs and LSTM, achieving performance at least 20% higher than alternative models.

Stack : Python, google colab.

Online Website

6th semester, 2022

- Designed an online learning platform for engineering students with advanced search functionality.
- Streamlined navigation across five engineering departments tailored to user interests.
- Optimized video selection process by incorporating review-based rankings, decreasing search time by 25%.

Stack : HTML , CSS , Handlebars , JavaScript , JQuery, NodeJS and MongoDB.

Virtual Assistant

7th semester, 2022

- Modeled AI-driven voice and gesture assistant to help users with everyday activities.
- Assigned specific voices and gestures to execute required operations. Tool interacted with approximately 25 voice commands and gesture controls.

Stack : Python, TensorFlow, keras , OpenCV.

CERTIFICATES

Microsoft Certified: Azure AI Fundamentals
Amazon WebServices Cloud Practitioner
Hackerrank Certification
Robotic Process Automation