ROSHINI VENKATESWARAN

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EDUCATION

The George Washington University, School of Engineering & Applied Science **Washington, DC**
  M.S. in Computer Science **May 2026**
Rajalakshmi Engineering College **Chennai, India**
  B.E in Computer Science and Engineering **May 2023**
Relevant Coursework: Machine Learning, Neural Networks, Computer Vision, Software Engineering, Cloud Computing, Software Paradigms

TECHNICAL SKILLS

- **Programming Languages:** Java, Python, C/C++, C#, Dart, JavaScript, HTML/CSS, SQL
- **Frameworks & Libraries:** Flutter, React, Node.js, Django, TensorFlow, Keras, Scikit-learn, Pandas, Scikit-learn, NumPy, OpenCV, UiPath
- **Tools & Technologies:** Firebase, Supabase, AWS, Git, MySQL, MongoDB, Android Studio, Xcode, RESTful APIs, Microservices, RPA
- **Additional Skills:** Full Stack Development, Machine Learning, API Integration, Data Structures & Algorithm, UI/UX, Agile, RDBMS, CI/CD
- **Certifications :** AWS Certified Cloud Practitioner(2025), AWS Cloud Operations(2025), AWS Machine Learning Foundations(2025)

PROFESSIONAL EXPERIENCE

Prommuni, Software Developer Intern - Fall | Germantown, MD **Oct 2025 – Present**
- Built a cross-platform roommate-finder app in Flutter using MVVM + GetX to ensure scalability, maintainability, and clean state management
- Implemented Firebase authentication, session storage, and real-time chat, ensuring secure, low-latency communication for 500+ test users.
- Integrated Mapbox SDK with geolocation, dynamic radius search, and location pinning, improving roommate matching accuracy by 40%.
- Implemented reusable UI components and modular APIs, reducing code duplication by 30% and standardizing development practices.
- Optimized API calls, caching, and rendering pipelines, reducing map load time by 30% and boosting app responsiveness.
- Implemented automated deployments with GitHub Actions CI/CD in an Agile environment, reducing build errors and delivery time by 25%.
- Deployed app on Google Play and App Store, ensuring compliance with store guidelines and smooth rollout processes.

Medica, Automation Development Intern - Summer | Minnetonka, MN **May 2025 – Aug 2025**
- Designed UiPath automation workflows, integrating API automation and data extraction that reduced manual processing time by 40%.
- Built scalable, reusable RPA solutions applying workflow design, exception handling, and task scheduling and monitoring in UiPath Orchestrator, ensuring 24/7 automation uptime and proactive issue alerts while reducing downtime by 15%.
- Executed process optimization, automating repetitive operations to achieve 30% reduction in operational costs and enhance efficiency.
- Contributed to the migration of a legacy desktop application using C#, integrating MSTest discovery and execution components.
- Resolved complex backend and assembly-loading challenges to modernize the testing framework and improve maintainability by 20%.

Advantage Capital Pvt Ltd, AI/ML Intern | Chennai, India **Dec 2023 – Apr 2024**
- Developed and integrated advanced NLP models, improving response accuracy by 25% and analyzing over 100K user interactions.
- Managed the full project lifecycle, optimizing chatbot logic and ML pipelines to enhance user experience and boost satisfaction by 30%.
- Built a customer intent classification model, applying feature engineering, hyperparameter tuning, and cross-validation, achieving 92% accuracy and deploying it via Flask API for real-time inference.
- Evaluated model performance with precision–recall metrics and confusion matrix analysis to identify key improvement areas.

Etuper Technologies, Software Engineer Intern | Kochi, India **Jun 2022 – Aug 2022**
- Developed the Brilliant Rewards full-stack web application for the hospitality domain using Spring Boot, MySQL, and REST APIs.
- Applied object-oriented design principles to build highly modular, maintainable backend services and reusable software components.
- Built secure and efficient APIs with Spring Security and JWT authentication, improving data integrity and user access control.
- Built robust backend services for user rewards and bookings, implementing efficient CRUD operations and optimizing SQL queries by 25%.
- Designed fully responsive UI components with HTML, CSS, and JavaScript, ensuring seamless client–server communication across platforms.
- Conducted detailed code reviews and unit testing with JUnit, accelerating software delivery by 15% in an Agile environment.

TECHNICAL PROJECTS

LoRA Fine-tuning for Historical Narration, Team Lead **Jan 2025 – Apr 2025**
- Fine-tuned pre-trained LLMs (Mistral-7B) using LoRA, enabling advanced, creative historical narratives with realistic "what-if" scenarios.
- Curated and carefully preprocessed a domain-specific historical dataset from Wikipedia for accurate storytelling fine-tuning.
- Applied efficient low-rank adaptation techniques to fine-tune large models using minimal computational resources.
- Generated context-aware, interactive narratives through prompt engineering, embeddings, and thorough evaluation of coherence and creativity.

Botify – AI-Powered Chatbot Assistant (**Medica Internship)** **Jun 2025 – Aug 2025**
- Developed Botify, a prototype AI chatbot for Medica's website, assisting members, providers, and visitors through conversational support.
- Built a responsive frontend UI with HTML, CSS, and JavaScript, featuring a floating chat icon for seamless accessibility.
- Implemented the backend in Flask, integrating Mistral-7B Instruct LLM and FAISS search for intelligent, context-aware responses.
- Processed website data using BeautifulSoup and Sentence Transformers, creating accurate embeddings for fast, relevant answer retrieval.

Expends – An Expense Tracking Mobile Application App, Team Lead **Sep 2024 – Nov 2024**
- Built a cross-platform expense tracker app using Flutter, GetX, Laravel, and MySQL, ensuring seamless multi-device compatibility.
- Developed secure RESTful APIs for real-time expense synchronization, improving data reliability and consistency across devices.
- Enhanced UI/UX design with Rive animations and smooth navigation, boosting user engagement and retention rates.
- Implemented interactive dashboards, categorization, and analytics, helping users track spending trends and manage finances efficiently.