Rajashekar Vennavelli

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EXPERIENCE

AI SOFTWARE ENGINEER; FETCH.AI | NOV 2024 – Present

- Contributed to the design and implementation of software agentic systems and frameworks, automating complex decision-making processes.
- Developed Fetch.ai SDK and API to enable agent discoverability, integration with langchain framework and improve agent-to-agent communication within multi-agent environments, resulting in a 25% improvement in system efficiency and coordination.
- Participated in E2E testing and code reviews, identifying and resolving performance bottlenecks to improve application reliability.
- Collaborated with cross-functional teams to ensure alignment of technical implementations with business objectives.

FULL STACK ENGINEER; ATLASNOVA AI | APRIL 2024 – OCT 2024

- Architected serverless API workflows using Python, AWS Lambda, and API Gateway, reducing operational latency by 40%.
- Designed and deployed an AI-powered document generation system that integrates LLM models (GPT-4, Claude, Gemini) and custom RAG pipelines, facilitating advanced document creation solutions for enterprise clients.
- Enhanced search relevance by 35% by integrating AI-driven semantic search capabilities with Pinecone.

SOFTWARE ENGINEER; World Bank, GECE | 2020 – 2022

- Transitioned ACE Analytics platform from a monolithic to microservices-based architecture, overcoming challenges like adapting single-instance only features for multi-instance compatibility and intelligent feature segregation based on behavior.
- Developed and maintained multiple microservices owned by the team, focusing on API development, integration, and testing.
- Took ownership of an end-to-end token management feature, integrating robust JWT authentication mechanisms to enhance security.

SOFTWARE ENGINEER; CITIBANK | 2018 – 2019

- Implemented public-facing REST API endpoints, standardized error messaging, tested APIs using JSON Schema in Postman and SwaggerIO, covering 50+ test cases.
- Leveraged Bitbucket for well-documented and maintained API codebase, ensuring streamlined collaboration, development.
- Attained 90% improvement in Hadoop resource allocation by developing an orchestration service using YarnAPI's for Spark jobs.
- Implemented backend cloud service for real-time status updates to clients, enhancing communication post each stage completion.

HACKATHONS & PROJECTS - https://devpost.com/RajashekarVennavelli

15 Hackathon Wins | *Across 25+ Prestigious International Hackathons* *Jan 2023 – Present*

- Launched 20+ full-stack web apps with an average 7+ hours spent on ideation and 20+ hours spent on design & development.
- Investigated user segment pain points and created persona customer journey when pitching touch-feel interactive demos.
- Implemented novel features like Voice AI, EdTech, Climate tech, Health Care, Georeferencing, Protein sequencing, GenAI based robotics.

1st Place Stanford University TreeHacks 2025 - Education Track Grand Prize | *1000+ Students* *Stanford University, Feb 2025*

- Technologies: Next.js, TypeScript, Python, Groq, Perplexity Sonar API, FastAPI, InterSystems IRIS Data Platform
- Developed a Peer-to-Peer EdTech platform to reduce the knowledge disparities within a classroom and improve learning outcomes.

1st Place CalHacks - ML Innovation Challenge | *1600+ Students* *San Francisco, Oct 2023*

- Technologies: AWS, TypeScript, Next.js, Sql, Arduino, OpenAI, Python, Tailwind CSS, NodeJS, Raspberry Pi
- Developed a multimodal health tracking system integrating prescription scanning, nutrient analysis, and real-time health monitoring.

1st Place HackMIT 2023, 3rd Place HackMIT 2024 | *1000+ Students* *MIT, Boston, Sept 2024*

- Technologies: InterSystems IRIS Vector search, Streamlit, Python, Firebase, Groq API, IBM Watson
- Developed a pneumonia diagnostic tool using LLMs & vector search to identify and match case studies, accelerating diagnosis.
- Developed an AI-powered journaling assistant to provide voice-to-text entry, sentiment analysis and conversation engagement.

1st Place UC Berkeley AI Hackathon - Best Climate Tech App | *2000+ Students* *UC Berkeley, June 2024*

- Technologies: Groq Inference, Hume AI, Hyperbolic Llama Vision Models, React, Fetch.ai, Python, TypeScript, LangChain
- Engineered an autonomous disaster response application, integrating distress calls, simulating drone, real-time situational updates.

EDUCATION

Santa Clara University **Santa Clara, CA**
M.S Computer Science and Engineering Sep *2022 – June 2024*

SKILLS & ADDITIONAL INFORMATION

- **Languages:** Java, Python, JavaScript, HTML/CSS **Databases:** Sql, Supabase, MongoDB **IAC:** Terraform, Ansible, CloudFormation
- **Technologies**: MERN Stack, RESTful APIs, Spring Boot, Next.JS, Kubernetes, Docker, RabbitMQ, CI/CD, Swagger, BitBucket, AWS