RAJASHEKAR VENNAVELLI

669-577-4085   rajashekarvennavelli@gmail.com   [Linkedin](#)   [Github](#)   [Devpost](#)

EXPERIENCE

AtlasNova AI   Cupertino, CA
Software Engineer Intern   *August 2024 - Present*

- Architected multiple workflows for processing multi-modal content, implemented a serverless API ecosystem using AWS Lambda and API Gateway, achieving a 40% improvement in data processing efficiency.
- Implemented advanced Retrieval-Augmented Generation (RAG) pipelines for AI-powered knowledge base using Pinecone vector database, which improved search result relevance by 35%.
- Engineered a sophisticated AI-driven document generation system utilizing AWS Lambda, integrating multiple LLM models (GPT-4, Claude, Gemini) with custom RAG pipelines.

Headstarter AI   Mountain View, CA
Software Engineer Intern   *April 2024 - July 2024*

- Built a learning management system (LMS) with React and Node.js. Implemented user authentication, course creation, and progress tracking. Leveraged PostgreSQL for data management and a microservice architecture for scalability.
- Developed a high-throughput data processing pipeline for real-time analytics using Node.js and PostgreSQL, optimizing database queries and facilitating seamless data flow across multiple microservices.
- Integrated a real-time notification system into an enterprise-grade web application using WebSockets and Node.js.

Fusion5   Tampa, Florida
Software Engineer   *2020 - 2021*

- Led the transformation of a monolithic CRM system into a microservices architecture, focusing on Contacts API, successfully reducing system downtime by 30% and improving scalability for handling high traffic during peak usage.
- Integrated a hybrid recommendation engine leveraging collaborative and content-based filtering, driving a 25% increase in average order value and generating an additional $2M in annual revenue through enhanced customer engagement.
- Took ownership of an E2E token management feature and integrated JWT authentication across multiple systems.

Citibank   Chennai, India
Application Developer   *2018 - 2019*

- Worked on the API team, architected a robust set of public facing REST API endpoints using Java Spring Boot, standardizing error messaging across the platform, achieved a 35% increase in third-party integrations in six months.
- Engineered and implemented critical OAuth and Surrogate Authentication components using GraphQL, decreasing login failures by 25%, boosting user retention by 15%, while ensuring GDPR compliance.
- Created CI/CD pipelines with Jenkins and Docker, automating the deployment process and reducing release cycle time by 50%.

HACKATHONS - PROJECTS

12 Hackathon Wins | *Across 20+ Prestigious International Hackathons*   Jan 2023 - Oct 2024
- Launched 20+ web apps with an average 7+ hours spent on ideation and 20+ hours spent on design and development.
- Investigated user segment pain points and created persona customer journey when pitching touch-feel interactive demos.
- Implemented novel features like Voice AI, Climate tech, Georeferencing, Protein sequencing, GenAI based robotics, etc

1st Place CalHacks - ML Innovation Challenge | *1600+ Students*   San Francisco, Oct 2023
- Research / Hypothesis: Need for tracking medication adherence, nutrition intake and health vitals all on one platform.
- Developed a multimodal health tracking system integrating prescription scanning, nutrient analysis, and real-time health monitoring via custom Raspberry Pi wearable and mobile app.

1st Place HackMIT 2023, 3rd Place HackMIT 2024 | *1000+ Students*   MIT, Boston, Sept 2024
- Research / Hypothesis : Make journaling an enjoyable experience, empower doctors to identify severity from x-ray scans.
- Built a pneumonia assessment tool which makes use of vector search to identify similar cases and diagnose quickly.
- Developed an AI-powered journaling assistant to provide voice-to-text entry, sentiment analysis and conversation engagement.

1st Place UC Berkeley AI - Best Climate Tech App | *2000+ Students*   UC Berkeley, June 2024
- Research / Hypothesis : Need for a streamlined autonomous system to handle crisis during disasters.
- Built a disaster response AI system, which takes autonomous actions based on satellite data, distress calls, real-time updates.

1st Place UCLA Hacks - Best AI Agent | *800+ Students*   Los Angles, April 2024
- Research / Hypothesis : Automate routine physical tasks in healthcare settings to handle various tools.
- Built an AI-driven robotic arm which uses computer vision and follows natural language commands for precise movement.

EDUCATION

Santa Clara University   Santa Clara,CA
Master of Science - Computer Science and Engineering;   *2022-2024*

Stanford University   Palo Alto, CA
Computer Science, Technology Entrepreneurship - Graduate Certificate Course   *2022*

SKILLS & ADDITIONAL INFORMATION

Programming Languages: Java (5 Yrs), Python (3 Yrs) , JavaScript(2 Yrs), C++, HTML/CSS
Frameworks: React.js, Spring Boot, Node.js, Next.js, Angular, Elixir, Clerk, Vercel, Agile
Cloud Tech & Tools: Docker, AWS S3, EC2, DynamoDB, Lambda, Kubernetes, Jenkins, RabbitMQ, GCP, CI/CD
Database Technologies: MySql, MongoDB, Postgres DB, Firebase, **IAC**: Terraform, Ansible, CloudFormation
Relevant Courses: Operating Systems, Computer Architecture, Machine Learning, Object Oriented Design & Analysis
Activities: AI Researcher, ACM Hackathon Coordinator, SCU Forge Garden Assistant, Web Development Bootcamp - CodePath