

RAJASHEKAR VENNAVELLI

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PROFESSIONAL EXPERIENCE

Headstarter AI

Software Engineering Fellow

Mountain View, CA

July 2024 - Present

- Developing five AI projects using technologies such as **Next.js**, **OpenAI**, **Pinecone**, and the **Stripe API**.
- Partnering with three fellow students to create a socially impactful **AI-driven** project, aiming to reach over **1,000 users**.

Santa Clara University Library

Full Stack Developer

Santa Clara, CA

Sep 2023 - June 2024

- Developed UI components (Tabbed Search, Chat, Calendar) in ReactJS for the University's library website with an average *Google Lighthouse score* of **85**.
- Developed a web application that secured authentication and authorization for **1000+** undergraduate students using *Shibboleth SSO, JWT and HttpOnly cookies*.
- Created **REST APIs** with **27 endpoints** for performing backend MySQL database CRUD operations using AJAX.

Global Energy Consulting Engineers

Software Engineer

Hyderabad, India

Nov 2020 - Jan 2022

- Worked in a **AuthZ team** for a World Bank project, leading the implementation of token management feature E2E, optimizing **microservices** by **40%** and increasing incident management efficiency by **75%**.
- Implemented a comprehensive password security upgrade for approximately **3 million users** across Power Audit & Power Customer, Integrated **JWT** authentication to secure the backend systems ensuring statelessness and scalability.
- Led the transformation of monolithic CRM into microservices architecture, focusing on Contacts API, Successfully deployed in Nepal, benefiting over **100,000+ users** with **30%** reduced downtime.

Citi

Software Engineer

Chennai, India

July 2018 - June 2019

- Worked on the **API team**, architected a robust set of public facing **REST API** endpoints, standardizing error messaging across the platform, achieved a **35%** increase in third-party integrations in six months.
- Engineered a Surrogate Authentication feature enabling seamless 'Login-As' access to customer applications, improving support efficiency by **40%** while ensuring complete compliance with stringent data privacy and encryption regulations.
- Architected and Implemented critical **OAuth** components for Citibank's products using **GraphQL**, decreasing login failures by **25%** and boosting user retention by **15%** within six months across 5 key applications.

PROJECTS

Movie Insights - [Live Link](#) | Python, Flask, React, PostgreSQL, Docker

- Developed and deployed a dynamic search functionality for movies and TV series in that triggers **API requests**, displaying results instantly; optimized user experience and boosted search efficiency by **40%**.
- Enhanced website performance by implementing Lazy Loading Effect and Dummy Layout.

DisasterAid.ai - [Live Link](#) | TypeScript, HuggingFace, AWS, Svelte, AmazonBedrock, LargeLanguageModels, RAG

- Developed an Generative AI-powered platform leveraging **Anthropic's Claude 3.5 Sonnet** model to deliver reliable, real-time insights on natural disasters, enhancing situational awareness for people.
- Implemented an interactive map feature with real-time pin drops using **Google Maps API**, integrating multi-source data & verification with Retrieval-Augmented Generation and **You.com APIs** to ensure accurate crisis information.

Chord Distributed Network - [Github](#) | Python

- Simulated a Chord distributed network using *Distributed Hash Tables (DHT)*, implementing data lookup, node addition, and deletion with data redistribution and network stabilization.
- Evaluated network performance across configurations with **100, 500, and 1000 nodes**, executing 1M random search queries, node deletions, additions, and analyzed average hops per search query using **10,000** distributed data points.

EDUCATION

Santa Clara University

Master of Science - Computer Science and Engineering;

Santa Clara, CA

June 2024

Stanford University

Summer Session - 2022

Palo Alto, CA

June 2022

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, TypeScript, Java, HTML/CSS

Frameworks: React.js, Spring Boot, Node.js, Django, Flask, JUnit, TypeScript, Material-UI, FastAPI, Bootstrap

Cloud Tech & Tools: Git, Docker, GCP, AWS S3, AWS DynamoDB, Lambda, Kubernetes, RabbitMQ, Azure, CI/CD

Database Technologies: MySql, MongoDB, Postgres

AWARDS AND ACHIEVEMENTS

- Awarded **Best application of Climate Tech built on AWS** at UC Berkeley AI Hackathon, 2024
- Awarded **Best AI agent based application built on Fetch.ai** at LA Hacks, 2024
- Awarded **1st Prize HackMIT 2023**, under "Combining AI & Physical World Challenge" MIT IBM Watson AI Lab
- Awarded **1st Prize at CalHacks 2023**, under Intersystems Integrated ML innovation challenge, 2023.