RAJASHEKAR VENNAVELLI

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Portfolio Website: https://rajashekarvennavelli.netlify.app/ **Devpost:** https://devpost.com/RajashekarVennavelli

PROFESSIONAL SUMMARY

Technology-driven Software Engineer with a Master's in Computer Science from Santa Clara University and 3 years of professional experience in software development. Demonstrated expertise in developing **enterprise software applications, user-facing APIs and services**, coupled with commitment to elevating application functionality & efficiency through **test-driven development & Agile practices**.

SKILLS SUMMARY

- **Languages**   Java, Python, Javascript, HTML
- **Frameworks**   Spring Boot, ReactJS, jQuery, NodeJS, Tailwind CSS
- **Tools & Cloud**   Kubernetes, Docker, CI/CD, Jenkins, RabbitMQ, JUnit, Gradle, Maven, Git, AWS, GCP
- **Database**   MySQL PostgreSQL, MongoDB
- **SCM and IAC**   Github, Ansible, Terraform

EDUCATION

- **Santa Clara University**   Santa Clara, USA
  Master of Science - Computer Science and Engineering; GPA: 3.71   *September 2022 - Present*
  Courses: *Distributed Systems, Machine Learning, Database System Design, Object Oriented Programming, Design & Analysis*

- **PSG College of Technology**   Coimbatore, India
  Bachelor of Engineering - Computer Science; GPA: 3.58/4.0   *July 2014 - June 2018*
  Courses: *Operating Systems, Data Structures, Design & Analysis of Algorithms, Computer Architecture, Software Engineering*

PROFESSIONAL EXPERIENCE

- **Global Energy Consulting Engineers**   Hyderabad, India
  Software Engineer (Full-time)   *Nov 2020 - Jan 2022*
  - Worked in a **AuthZ team**, contributed and developed on different microservices the team owns, took ownership of an E2E feature where we create and expose token chains that can be revoked in case of incidents
  - Implemented a comprehensive password security upgrade for approximately **3 million users** across Power Audit & Power Customer, Integrated **OAauth & KeyCloak** enhancing overall system integrity and user data protection.
  - Worked on decomposing monolithic CRM monolith into microservices, taking charge of **Contacts API** as a microservice for improved **modularity & efficiency**. Successfully deployed in **Nepal**, serving over **100,000 users**

- **Citibank**   Chennai, India
  Application Developer (Full-time)   *July 2018 - August 2020*
  - Worked on the **API team**, developed many public facing **REST endpoints**, made error messaging consistent across all APIs for different scenarios, improving the overall performance of the system by **70%**
  - Developed a new feature to use Surrogate Authentication to Login-As our customers into their applications and help them, Ensured compliance with industry industry regualtions related to data privacy and encryption standards.
  - Developed, tested and deployed many aspects of the **OAuth part** of Citibank family of products, Utilized **GraphQL API** for the front-end calls, took ownership of the product E2E, resulting in the **90%** increase in compliance rate

PERSONAL PROJECTS

- **DisasterAid.ai** | *JavaScript, TypeScript, HuggingFace, AWS, Svelte, AmazonBedrock, LargeLanguageModels, RAG*
  - Developed an **Generative AI-powered platform** leveraging Amazon Bedrock, **Anthropic's Claude 3.5 Sonnet** model to deliver reliable, real-time summaries and 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.

- **Object Detection in Live Camera Feeds** | *Python, Bashscripts, TensorFlow, Keras, NumPy, Docker, Kubernetes*
  - Implemented object detection in traffic camera footage by leveraging Python, TensorFlow, and transfer learning with **YOLO (version 5) model**, achieving a remarkable **85%** accuracy in real-time identification and tracking of multiple objects.
  - Optimized the efficiency of the model, leading to an average detection and tracking of 30 objects per minute, reducing response time for traffic incidents by **35%**.

HONORS AND AWARDS

- 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.
- Awarded **2nd Prize** at **HackUTD 2023**, under Goldman Sachs AI based algorithmic earnings forecasting.