

KARTHIK RAMADUGU

karthiksaidham2001@gmail.com | San Francisco, CA (Open For Relocation) | Python Full Stack Developer | [LinkedIn](#) | [Portfolio](#) | [Github](#)

SUMMARY

Python Full Stack Software Engineer with experience building scalable web applications using React, Angular, Next.js, Node.js, Flask, and FastAPI. Skilled in developing REST APIs, distributed systems, and cloud-native applications using AWS and Azure. **Won 1st place at Akash Open Agents Hackathon 2026** building HealthGuard, a decentralized AI health agent. Experienced in containerized deployments using Docker and Kubernetes with CI/CD automation through GitHub Actions and Jenkins. Proficient in building data-driven applications integrating SQL/NoSQL databases and Elasticsearch search engines. Strong experience using modern AI tools including AWS Bedrock, Codex, Claude, OpenClaw, and WinSurf to accelerate development and improve system performance.

SKILLS

- **UI Development:** React, Angular
- **Backend Development:** Python, Django, Flask, FastAPI, Nodejs
- **Messaging Systems:** Kafka, RabbitMQ
- **CI/CD Tools:** GitHub Actions, Jenkins
- **Logging & Monitoring:** Datadog, ELK Stack, kibana, grafana
- **Databases:** SQL, Nosql
- **Search & Analytics:** Elasticsearch
- **Containerization & Orchestration:** Docker, Kubernetes
- **Cloud Platforms:** AWS (EC2, S3, Lambda), Azure
- **AI & LLM Tools:** AWS Bedrock, OpenAI Codex, Claude, OpenClaw, WinSurf, Venice AI
- **Version Control:** GitHub, Bitbucket
- **Code Quality:** SonarQube
- **Application Security:** Veracode

EXPERIENCE

Python Full Stack Developer | SVT IT Infotech Inc | Remote Feb 2026 – Present

- Developed full-stack applications using React and Angular integrated with FastAPI and Django REST APIs handling secure authentication and role-based access control.
- Designed scalable backend microservices using Python and FastAPI improving API response time by 40%.
- Built event-driven services using Kafka and RabbitMQ for asynchronous processing and improved system throughput.
- Implemented CI/CD pipelines using GitHub Actions and Jenkins reducing deployment time by 50%.
- Containerized applications using Docker and deployed Kubernetes clusters on AWS EC2 improving scalability and availability.
- Implemented monitoring dashboards using Datadog, Kibana, and Grafana improving system observability.
- Designed optimized Elasticsearch queries improving search performance for large datasets.
- Integrated AWS services including EC2, S3, and Lambda for serverless workflows and cloud deployments. Used SonarQube and Veracode to maintain secure and high-quality code standards.

Python Backend Developer | FunctionUp | Remote Nov 2022 – May 2023

- Developed REST APIs using Flask and FastAPI for web and mobile applications.
- Built responsive UI interfaces using React and Angular improving user experience and accessibility.
- Designed relational and NoSQL database schemas supporting high-volume transactions.
- Implemented secure authentication and authorization mechanisms using JWT tokens.
- Developed microservices deployed using Docker containers.
- Automated builds and deployments using GitHub Actions.
- Used Elasticsearch for fast text search and analytics.

PROJECT HIGHLIGHTS

- **HealthGuard - Decentralized AI Health Agent [Hackathon Winner]:** Built a privacy-first AI health agent using Venice AI on Akash Network with zero-knowledge architecture. User health data never touches a centralized server. Won 1st place at Akash Open Agents Hackathon 2026.
- **DevAssist AI — Agentic AI Developer Assistant (Next.js, Node.js, OpenAI GPT-4o, Vector Embeddings):** Built a full-stack AI-powered developer assistant with 7 specialized agents for code review, generation, debugging, explanation, refactoring, and test generation, featuring multi-agent orchestration, semantic vector search, and a 21-rule static code analyzer with A-F grading. Deployed on Netlify and Render.
- **NestMind AI — Multi-Agent Student Assistant (Python, FastAPI, LangChain, RAG):** Built a multi-agent agentic AI system at a hackathon with domain-specific agents for housing, career, buddy matching, and food ,each autonomously handling queries using LangChain orchestration, RAG, and shared memory with a FastAPI backend and PostgreSQL
- **StudentNest GenZy — Full Stack Platform (Django, React, PostgreSQL, AWS):** Developed and published a cross-platform application with Django REST backend and React frontend on Google Play Store, featuring real-time notifications, geospatial search with Elasticsearch, and automated deployment via Docker on AWS.

ACHIEVEMENTS

- **1st Place, Akash Open Agents Hackathon 2026** - Built HealthGuard, a decentralized AI health agent using Venice AI and zero-knowledge architecture on Akash Network.

EDUCATION

University of Dayton — Dayton, M.S. Computer Science

Jan 2024 – Dec 2025