

VIVEK RAJKUMAR SARNAIK

viveksarnaik@gmail.com | <https://viveksarnaik.com/> | +1 (682) - 248 - 4197 | [Linkedin](#) | [Github](#) | Dallas, TX

Software Engineer with 2+ years of experience developing scalable software solutions using Python, Java, React, Go, and AWS. Strong foundation in full-stack development, distributed systems, and cloud computing.

TECHNICAL SKILLS

Languages: Python, Go, JavaScript, TypeScript, Java, SQL

Frontend: React, Next.js, HTML, CSS, Tailwind CSS

Backend: FastAPI, Flask, Django, Node.js, Express.js, gRPC, REST APIs

Cloud & DevOps: AWS (EC2, S3, RDS, Lambda), Docker, Jenkins, GitHub Actions, CI/CD

Databases: PostgreSQL, MySQL, MongoDB, Redis

Tools: Git, GitHub, Linux, Postman, Jira

EXPERIENCE

Full-Stack Developer, SkillShare, Remote, USA

July 2024 - Dec 2025

- Optimized front-end architecture of an SEO-driven learning platform using **React, Next.js (SSR), and Redux**, reducing **page load times by 35%** through server-side rendering and performance optimization techniques.
- Developed RESTful APIs using **Django** and **Node.js**, **optimizing PostgreSQL schemas** and **query execution** to support high-volume user, course, and payment workflows.
- Engineered authentication and authorization mechanisms using **JWT and OAuth 2.0**, implementing centralized validation and role-based access controls across multiple application modules.
- Developed payment and notification workflows using **Stripe and SendGrid APIs**, enabling automated billing, transactional email delivery, and payment status notifications.
- Containerized application services** with **Docker** and **implemented CI/CD pipelines** using **GitHub Actions**, streamlining deployment workflows and **reducing release cycles by 60%**.

Software Engineer, Genpact, Pune, India

May 2021 - Dec 2021

- Developed core microservices for a high-volume financial asset platform using **Python (FastAPI/Flask)** and **Node.js**, decoupling monolithic booking flows into scalable background processes.
- Built interactive web applications using **React.js** and **Next.js**, leveraging reusable component libraries and server-side rendering to improve performance and maintainability.
- Refined **PostgreSQL** query performance via strategic indexing, connection pooling, and execution plan analysis, **decreasing database latency by 40%** and maximizing transaction throughput.
- Collaborated with product managers and QA teams in Agile/Scrum environments **to deliver customer-facing features** and backend enhancements across multiple release cycles.

PROJECTS

gRPC ChatHub | Go, gRPC, Protocol Buffers, Docker ([Link](#))

- Designed a **distributed**, real-time messaging application in **Go** utilizing **gRPC** bidirectional streaming to maintain low-latency communication across concurrent client connections.
- Implemented **goroutines, channels, and thread-safe connection management** to support concurrent message delivery across **multiple clients**.
- Containerized services with **Docker and Protocol Buffers**, enabling reproducible deployments and efficient cross-service communication.

Distributed Job Scheduler | Python, FastAPI, Redis, PostgreSQL, Docker ([Link](#))

- Developed an asynchronous task processing system using FastAPI, Redis, and PostgreSQL to offload resource-intensive workloads from the primary application flow.
- Implemented an orchestration layer using Redis** as a message broker, integrating **exponential backoff retry mechanisms** and status tracking to guarantee fault tolerance.
- Designed worker scheduling and task persistence mechanisms to support reliable execution and recovery of failed jobs.

AI Code Review Assistant | Python, FastAPI, React, PostgreSQL, OpenAI API ([Link](#))

- Built an AI-powered code review platform that analyzes source code using **LLMs** to detect bugs, security vulnerabilities, and performance issues while providing actionable improvement suggestions.
- Developed a scalable full-stack architecture with **FastAPI, React, and PostgreSQL**, supporting asynchronous review processing, review history tracking, and concurrent user requests.
- Implemented **prompt engineering** and **structured response generation techniques** to provide consistent and explainable code review recommendations across multiple programming languages.

EDUCATION

M.S. in Information Science | Trine University

May 2026

M.S. in Computer Science | The University of Texas at Arlington

May 2024

B.E. in Computer Engineering | Savitribai Phule Pune University

April 2021