Vivek Agrawal

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Overview

Full-stack engineer who thrives in taking responsibility end-to-end — from understanding an ambiguous problem to deploying the code to production. I value **simplicity** and **understanding of the fundamentals**.
I recently built ListenUser all by myself — a B2B customer support tool built with Django and Vue.

Skills

Backend proficiency: **Python, Django, PostgreSQL, Concurrency, RESTful APIs.**
Frontend proficiency: **Vue, JavaScript, CSS, UX Design.**
Infrastructure proficiency: **Docker, Nginx, Linux.**
Working knowledge of **C** and **C++.**
Comfortable with **Cursor** and experienced with **utilizing LLMs** to develop product features.

Work Experience

Founder (Jan 2025 — Aug 2025 • 8 months)
ListenUser • Remote • Full-time

➜ Observed SaaS companies using Intercom and a feedback tool like Canny on top of that. This was the insight for building ListenUser (Vue and Django) as a customer support plus feedback tool for SaaS companies.

➜ Used Postmark's inbound processing for auto-forwarding of incoming emails to the ListenUser inbox. Implemented realtime in-app notifications via WebSockets to alert team members when they are mentioned on a thread.

➜ For in-app support & feedback, built a custom web element in Vue that our users could embed on their web app via a script.

Founder (Mar 2024 — Oct 2024 • 8 months)
QA Rangers • Remote • Full-time

➜ Trying AutoGPT hit me with the vision of QA Rangers — an AI agent for development and maintenance of end-to-end UI automation tests.

➜ Read research papers on autonomous web UI agents (SeeAct, You Only Look at Screens: Multimodal Chain-of-Action Agents) to build a Proof of Concept. Published an article on how I researched and built QA Rangers' PoC.

➜ Learned about ML fundamentals, LLM training process, embeddings, vector databases and multi-modality.

Full Stack Engineer (Jul 2023 — Mar 2024 • 9 months)
Junior Python Engineer (Sept 2021 — Jun 2023 • 1 year 9 months)
Learning Equality • Remote • Independent Freelance Contract

➜ Led the investigation of a critical search query timing out on a large PostgreSQL table (millions of rows). Co-designed a new table with full-text search and GIN indexes, resulting in an optimized query that prevented timeouts. Here's the PR that introduced full text search to the backend API and this PR introduced the new models.

➜ Helped design a deployment architecture in Ray to handle pre-processing, post-processing and scalable computation of an internal embeddings model for recommendations.

➜ Experienced working on offline-first architecture and synchronization of data between simultaneous clients and a central server.

Google Summer of Code 2021 Student Developer (Jun 2021 — Aug 2021 • 3 months)
Learning Equality • Remote

➜ Developed an async task registry and custom Python decorator to register long running functions for future processing (See PR). As a result, we were able to decouple around 20 async tasks from a monolithic module to their own Django apps.

➜ Introduced an API to enqueue async tasks with custom validation. Also, refactored the async task workers to enable priority based fetching of async tasks.

➜ I wrote an article about my Google Summer of Code 2021 contributions in some detail.

Open Source and Side Projects

➜ Built an AI tool to generate product changelog by passing git commit messages to an LLM.

➜ Built a CLI based school management system in C++ as a high scool project.

➜ Launched a free course on public key cryptography. Received praise from Kent C. Dodds and Cassidy Williams.

➜ Contributed to freeCodeCamp's curriculum expansion by building a digital signature system based on the RSA algorithm with the aim to teach public key cryptography — later recognized among top 100 contributors of 2019.

Education

Bachelor's of Technology in Computer Science Engineering (2019 — 2023 • 4 years)
SSIPMT, Raipur