

ANNIRUDHA TRIVEDI

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EXPERIENCE

OneOrigin

Senior Software Engineer

Bengaluru, IN

February 2025 – Present

- Led **Poppy**, an internal AI search engine answering plain-language questions across 400+ company documents from Slack and the intranet, on hybrid semantic and keyword retrieval (**FastAPI**, **Elasticsearch**, **PostgreSQL**, **Redis**, **GCP**). It serves **200+ employees** and **1,000+ questions a month**, answering in seconds what once took hours of asking around.
- Kept its index current through **Google Drive API** webhooks and service accounts, ingesting roughly 100 document updates a month, and ran embeddings on a self-hosted model with **Gemini** only for responses, **cutting embedding cost by 50%**.
- Replaced per-university scraping scripts with an AI extraction platform that reads course catalogues from university sites and PDFs, verifies them with validation agents, and exports CSV/JSON (**FastAPI**, **OpenAI APIs**, **Google ADK**, **Firebase**). It covers roughly **40% of the 1,600+ universities**, and onboarding one takes **hours of prompt tuning**, not days of scripting.
- Owned the re-architecture of the course-equivalency platform universities use for transfer-credit decisions: ingestion services, embedding pipelines, **VectorDB** and **MongoDB** storage, cache layers, async matching, plus **one set of service boundaries, API contracts, and data-lifecycle rules** for the team.
- Moved bulk matching, thousands of courses per run, onto **Celery** pipelines that notify client systems by webhook and show progress in a status UI, so long runs no longer block the platform and failures are traced in **minutes**.
- Course matching runs on a self-hosted embedding model, so co-built an evaluation suite scoring candidate models against verified matches, cutting model selection from **days to hours**.
- Delivered per-client workflows turning **1,000+ student transcripts a day** into structured records on a **Node.js / TypeScript / Fastify** platform (**RabbitMQ**, **MongoDB**, **Redis/Valkey**, **AWS**), with reusable actions and a template engine cutting duplicated logic by **40%**.
- Built the **React** and **TypeScript** interface where staff review the top five matches for a course, with cached results and live processing states, letting sales demo **without engineering support**.
- Wrote the extraction workstream's standard operating procedures and mentored three engineers on engineering practice and AI-assisted development, taking several timelines from **weeks to days**.

Women's Health Startup (under NDA) — Independent Contractor, SDE

October 2024 – December 2024

- Built client-facing product surfaces in **Flutter** against a **Node.js**, **Prisma**, and **Firebase** backend, delivering the contracted app and API scope in a three-month engagement. Details under NDA.

Meragi (Wedding & Event Management)

Bengaluru, IN

Software Development Engineer | Innovation Champ Award, May 2023

December 2022 – June 2024

- Automated lead stages in the **Django/DRF** sales platform so Qualified, Disqualified, and Prospect statuses follow from interaction reasons, not manual review, and integrated **Google**, **Slack**, and **RevSpot AI**, cutting lead processing by roughly **60%**.
- Designed a stock-management tool tracking quantity, source, photo-verified condition, and warehouse movement of event materials, cutting inventory mix-ups between weddings by roughly **80%**.
- Built a budget calculator and vendor-recommendation engine from historical pricing and category spend, plus an AI venue bot (**Claude**, **Llama Index**) over 500+ listings scraped with **Scrapy**, **Selenium**, and **BeautifulSoup** returning the top five venues for a plain-language brief, cutting shortlisting from **hours to minutes**.
- Delivered the events team's internal operations platform, automating account provisioning for new joiners and tracking tasks, timelines, and per-person contributions, **retiring the manual HR onboarding loop** and its planning spreadsheets.

Qube (Venture-backed hardware startup)

Bengaluru, IN

Software Engineer

August 2021 – November 2022

- Developed the production-line web app used to flash firmware onto devices (**ReactJS**, **Django**, **GraphQL**), giving the team a **single record of each device's firmware state** and metadata.
- Containerized the backend with **Docker** on **AWS**, served the frontend over CDN, and wrote **Python** supplier scrapers and **Arduino / C/C++** device firmware.
- Owned testing and debugging of the company's Energy and Home-Automation Dashboard through release.

Phirlo — Independent Contractor, SDE

December 2021 – March 2022

- Delivered the Phirlo marketplace and admin panel (**NextJS**, **Django**) with a session-based cart that locks items until checkout and a store-credit purchase API.

PROJECTS

Brain-Computer Interface for Controlling Games

June 2020 – June 2021

Classified live EEG headset signals with a trained neural network to control a game character, covering data collection, model training, and live inference.

EDUCATION

M.S. Ramaiah Institute of Technology, Bengaluru | B.E. Information Science | GPA **7.68/10.0**

August 2021

1st Prize, Intra-College Mathematics Competition (2018)

SKILLS

Languages: Python, TypeScript, JavaScript, Dart, C/C++.

Frontend: ReactJS, NextJS, Flutter, TailwindCSS, Refine, Apollo Client.

Backend: FastAPI, Django, DRF, Flask, Celery, Node.js, Fastify, Express, Prisma, GraphQL, REST & Google APIs.

Data & Infra: PostgreSQL, MongoDB, Redis/Valkey, Elasticsearch, Vector DBs, Firebase, AWS, GCP, Docker, RabbitMQ.

AI: OpenAI APIs, Gemini, Claude, Google ADK, Llama Index, embeddings & hybrid search, agent workflows, self-hosted models.

AI Dev Tooling: Claude Code, GitHub Copilot, Cursor, Lovable.