

NIKHIL AGRAWAL

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FULL STACK PRODUCT ENGINEER

Building AI Applications, Developer Tools, and Customer-Facing Products

Engineer with 6+ years of experience building software products from idea to production. I have worked across AI applications, backend systems, customer-facing tools, internal platforms, and automation workflows in startup environments where ownership extends far beyond writing code. My background combines full-stack development, product thinking, hands-on problem solving, and customer-facing execution. I enjoy working closely with users, rapidly prototyping solutions, and turning complex technology into products people can understand, evaluate, and use.

TECHNICAL SKILLS

Languages: Python, SQL, JavaScript, TypeScript

Frontend: React, Next.js, TypeScript, Responsive UI Development, API Integration

Backend: FastAPI, Flask, REST APIs, Microservices, AsyncIO, API Design, Background Jobs, Microservices

AI Applications: LLM Applications, RAG, Semantic Search, Embeddings, Vector Search, Prompt Workflows, Agentic Workflows

Cloud & Infrastructure: Azure, AWS, Docker, CI/CD, Containerization, Linux

Data & Search: PostgreSQL, MongoDB, Neo4j, Weaviate, FAISS

Developer Tools: GitHub, Cursor, GitHub Copilot, Claude, ChatGPT, Gemini

PROFESSIONAL EXPERIENCE

Founding Engineer, Open Governance Initiative (OpGov.ai) 🌐

Aug 2025 – Present | San Francisco Bay Area

- Helped build the company's core AI product from the ground up, creating tools that allow users to search, explore, and understand large collections of civic data.
- Built backend services, data pipelines, and user-facing features supporting more than 1M records each week.
- Worked directly with stakeholders to understand problems, prototype solutions, gather feedback, and ship improvements.
- Built systems for search, summarization, reporting, and document analysis that reduced manual research effort and made complex information easier to access.
- Created internal tools and workflows that improved operational efficiency and accelerated product development.
- Improved search relevance by 30% by refining retrieval workflows, indexing strategies, and evaluation processes.
- Built product prototypes and demo-ready workflows to help stakeholders understand the capabilities of AI-powered search and document intelligence.
- Contributed across product, engineering, infrastructure, and customer-facing initiatives in a small startup environment.

AI Engineer & Backend Developer, Open Governance Initiative (OpGov.ai) 🌐

Jan 2025 – Aug 2025 | San Francisco Bay Area

- Developed full-stack applications for semantic search, document intelligence, and AI-assisted knowledge discovery.
- Built APIs, ingestion pipelines, and user-facing workflows for processing and searching large volumes of unstructured public-sector data.
- Created working prototypes that showed how AI could help users query transcripts, summarize information, and discover relevant policy context.
- Delivered production-ready systems using Python, Flask, FastAPI, Docker, Azure, MongoDB, Weaviate, and FAISS.
- Improved product quality through retrieval tuning, prompt iteration, backend refactoring, and feedback-driven development.
- Refactored early codebases into modular services, improving maintainability and making it easier to ship new features quickly.

ML Engineer / Full-Stack Engineer, Petpin AI 🌐

Feb 2024 – Aug 2024 | San Francisco, CA

- Built customer-facing applications and dashboards for an AI-powered hardware product.
- Developed full-stack software connecting IoT devices, backend services, analytics pipelines, and user interfaces.
- Created dashboards that helped users and internal teams understand real-time device behavior, telemetry, and AI-generated insights.
- Worked across software, hardware, and product teams to rapidly test ideas, build prototypes, and improve customer-facing functionality.
- Built backend pipelines for real-time ingestion, inference, and API communication under memory and performance constraints.
- Helped translate technical system behavior into visual interfaces that made the product easier to understand and use.

Founder & Technical Lead, R P Era

Aug 2018 – Aug 2023 | Mumbai, India

- Built and operated a technology-enabled engineering business, managing everything from customer acquisition and project scoping to software systems and operations.
- Developed websites, landing pages, digital catalogs, and customer-facing tools that supported lead generation and business growth.
- Worked directly with customers to understand requirements, propose solutions, and deliver projects from concept through completion.
- Built internal systems for quotations, inventory management, reporting, lead tracking, and workflow automation.
- Used customer feedback, sales data, and operational metrics to improve processes, identify growth opportunities, and increase profitability.
- Improved operational efficiency by 15% through automation, better reporting, and process improvements.
- Learned how to balance engineering decisions with customer needs, business priorities, and execution speed.

Teaching Associate – Statistics Department, California State University, East Bay 🌐

Aug 2024 – Dec 2024 | Hayward, CA

- Designed lectures, exercises, and assessments that improved student engagement and helped increase class performance.
- Strengthened presentation, technical communication, and mentoring skills through weekly instruction and feedback.

EDUCATION

Master of Science – Statistics (Data Science Track),

Hayward, CA

California State University - East Bay | GPA: 3.9/4.0

- Honors: Heebok Park Scholarship

Bachelor of Engineering - Mechanical Engineering, University of Mumbai

Mumbai, IN