MUKHIL BASKARAN

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EXPERIENCE

FuseGlobal   San Francisco, CA
Founding Engineer | Enterprise AI SaaS Platform (Stealth Startup)   *Spring 2025 – Aug 2025*

- Solo-architected enterprise AI SaaS from first commit to production alpha (10 users) in 5 months as sole technical owner reporting to investors—designed 16-table multi-tenant PostgreSQL schema with RLS, integrated 4 production AI models (OpenAI Agents SDK, ChatKit, MCP), and shipped conversational agent system with streaming inference.
- Shipped split-pane chat + live document editor with agent-driven surgical patch application—built FastAPI backend with typed Python service layers and Next.js 15/React 19 frontend featuring real-time markdown rendering and robust JWT session management—enabling collaborative document editing for 10 alpha users with sub-second UI updates.
- Evaluated RAG pipeline with real metrics: Recall@5 of 0.83 (human-labeled) and 1.00 (auto-seeded) at <500ms P95 latency using Qdrant + Cohere; shipped admin validation system with Gemini question generation and OpenAI scoring; owned deployment infrastructure on DigitalOcean with Docker, Nginx, PM2, and GitHub Actions CI/CD.

EMeRG   Calgary, Canada
Freelance Software Engineer   *Nov 2024 – Jan 2025*

- Contracted directly by business client to extract data from 200+ hospital websites—delivered AI-powered web scraper achieving approximately 80% extraction accuracy in 2-month timeline using Crawl4AI + Groq AI, handling requirement gathering, architecture decisions, and iterative client feedback.
- Shipped React frontend with PostgreSQL backend featuring validation pipelines, structured storage, and retry logic—supporting repeatable on-demand extraction workflow for healthcare data processing.
- Managed client relationship through weekly progress updates, scope negotiation, and rapid feedback incorporation—delivered production-ready system on deadline with deployment on Vercel and GitHub Actions CI/CD.

Panther Dining - Chick-fil-A   Atlanta, GA
Student Software Assistant   *Sep 2022 – Oct 2024*

- Eliminated manual paper-based inventory tracking for campus Chick-fil-A by building full-stack system adopted by 10+ staff for managing 200+ SKUs daily—replaced error-prone manual processes with Python backend + Next.js frontend, improving operational efficiency store-wide.
- Shipped production REST API with PostgreSQL, optimized queries, JWT auth, and CORS configuration while learning backend fundamentals on the fly—system supported 10+ staff daily operations handling 200+ SKU transactions reliably.
- Deployed on AWS EC2 and maintained production system over 2 years while balancing full-time coursework—handled continuous bug fixes, performance optimization, and feature requests, keeping system stable for daily store operations.

EDUCATION

Georgia State University   Atlanta, GA
Bachelor of Science in Computer Science   *2022-2025*

- President's List, Spring 2024 | GPA: 3.52
- Relevant Coursework: Software Engineering, Web Development, Database Systems, AI/ML

PROJECTS

FinanceTracker - Personal Expense Management Platform | *React, Next.js, Node.js, TypeScript, OAuth 2.0*   Live Demo

- Built to solve personal overspending—shipped full-stack expense tracker with AI-powered spending analysis via OpenAI API, OAuth 2.0 auth, and encrypted storage; gained organic adoption by 10+ friends tracking 200+ transactions, validating product-market fit without marketing effort; deployed on Vercel with GitHub Actions CI/CD and dockerized entire stack as self-directed DevOps learning.

TinyTasks - Voice-First AI Task Management App | *React Native, Expo, Node.js, Flask, Groq AI*   GitHub

- Pivoted capstone project in 2 weeks after user feedback—integrated Groq Whisper for voice recognition and Llama models for intelligent task extraction, transforming basic task app into voice-first AI experience with automatic subtask generation.
- Shipped cross-platform mobile app (iOS/Android) with Flask AI backend, React Native/Expo frontend, and real-time Supabase calendar sync; dockerized services for deployment—reducing task entry from manual typing to 5-second voice commands with automatic structuring.

TECHNICAL SKILLS

UI Development: React, Next.js, React Native, Expo, TypeScript, JavaScript, HTML/CSS, Tailwind CSS, Responsive Design
Backend: Node.js, Python, FastAPI, Flask, RESTful APIs, Microservices
LLM/AI Integration: OpenAI Models, Anthropic Claude, OpenAI Agents SDK, ChatKit (Python & JS), MCP (Model Context Protocol), Pydantic AI, Groq AI, AI Dev Tools (Claude Code, Codex, Warp AI), Prompt Engineering, RAG Systems
DevOps & SDLC: Git/GitHub, CI/CD Pipelines, Docker, Agile/Scrum, Code Reviews, Testing Frameworks
Databases: PostgreSQL, Redis, Supabase, Query Optimization (Indexes, Pagination, Join Optimization)
Cloud & Security: DigitalOcean Droplet (VM), AWS EC2, OAuth 2.0, JWT