ASHUTOSH RUDRAKSH

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PROFESSIONAL EXPERIENCE

Software Engineer – Tekainos (Startup) [Aug 2025–Present]

Remote, USA

- Designing & implementing scalable ETL AI pipelines, data modeling, integrating Salesforce CRM, accounting & scheduling systems via AWS/GCP Lambda & Cloud Functions, enabling real-time customer data sync to automate manual data entry.
- Building MCP (Model Context Protocol) server layer in FastAPI to standardize schema inference, field mapping, connector generation across heterogeneous systems, cutting onboarding time for new integrations from 6 weeks to 2 days.

Skills: Python, FastAPI, AWS (Lambda, API Gateway, S3, RDS), Redis, Salesforce CRM, MCP

Co-Founder & Product/AI Engineer – NAVAI (Stealth Startup) [Oct 2024–May 2025] Demo

Remote, USA

- Co-founded NAVAI, building a real-time vision-to-voice navigation system using YOLOv8, LLaMA-3, and Flutter, eliminating \$15K+ hardware costs for visually impaired users through a software-only solution.
- Spearheaded end-to-end development, from computer vision pipeline to mobile deployment, earned "Best Accessibility Hack" at Hack OH/IO & led product strategy & user testing.

Skills: Computer Vision, LLMs, YOLOv8, LLaMA-3, Flutter, FastAPI, OpenCV, Product Strategy

Software Engineer – Wexner Medical Center [May 2024–Aug 2024]

Ohio, USA

- Automated triage pipeline by cutting human review queue by 60%, saving 100+ staff hours per week and ~\$250K annually, with CI/CD deployment via GitHub Actions & Docker on Linux environments, ensuring cross-platform compatibility.
- Prompt-engineered LLaMA on 5K+ clinical documents, boosting classification accuracy by 30%, enabling scalable backend APIs for clinical workflows with automated test coverage (unit/integration) to ensure reliability across environments.
- Designed & integrated React/Redux/TypeScript dashboards with backend REST APIs, delivering real-time clinical data visualization, improving decision-making efficiency for physicians.

Skills: Spring Boot, JavaScript, React, Redux, TypeScript, FastAPI, MongoDB, GitHub Actions, Docker

Research Assistant – The Ohio State University [Jan 2024–Apr 2024]

Ohio, USA

- Constructed a knowledge-graph-driven RAG system with Neo4j, LangChain, and GPT-4, enhanced retrieval accuracy by 30% & slashed response latency by 25% for complex HPC queries.
- Engineered Airflow-orchestrated ETL pipelines for supercomputer log analysis on Linux clusters with Bash automation (log collection & preprocessing), reducing administrators' manual log analysis workload by 40%, & built context-aware conversational AI user interface (UI/UX), enabling multi-turn natural language queries.

Skills: Python, Linux, Spring Boot, JavaScript, Neo4i, GPT-4, LangChain, FastAPI, MongoDB, Airflow

Software Engineer (Co-op) – CloudLead Technologies [May 2022–Jan 2023]

Remote

- Prevented fraud on 2M+ monthly transactions by building a Spring Boot microservice with Redis checks, maintaining 99.99% uptime.
- Boosted credit-risk model accuracy by designing **AWS data pipelines** (EC2, RDS, S3), **collaborated** with **cross-functional teams**, designed **25**+ predictive features for ML models that **increased revenue by \$120K**.

Skills: Java, Spring Boot, Redis, SQL, AWS (EC2, RDS, S3, Lambda), Docker, Kubernetes, Kafka

PROJECTS & HACKATHONS

TRAVEL COPILOT – UC BERKELEY AI HACKATHON - Claude-Code, Replit, TypeScript, Next.js, AWS (Lambda)

<u>Link</u>

- Generated real-time, personalized travel itineraries by integrating flight, hotel, weather APIs using OpenAI & Claude.
- Delivered instant plans via a Lambda-powered backend and Next.js UI, optimizing user flow and planning accuracy.

TRADING & MARKET DATA MCP SERVER – MCP, FastAPI, WebSockets, Redis, Alpha Vantage API, Docker, Replit

<u>Link</u>

- Handled 10K+ market updates/min, MCP server with real-time WebSocket streams and order simulations.
- Reduced latency & improved data integrity by enforcing schema via MCP & deploying Dockerized services for scalability.

EDUCATION

The Ohio State University - The Honor Society of Phi Kappa Phi

Columbus, Ohio

M.S. Computer Science & Engineering, GPA: (3.8/4.0) – Specialization in LLMs & AI Systems Graduated May 2025 Coursework: Computer Vision, Advanced Artificial Intelligence, Advanced Operating Systems, Advanced Algorithms

SKILLS

Languages: Python, Java, Bash, JavaScript (ES6+), TypeScript

Frameworks & Libraries: Spring Boot, React (Next.js), Redux, FastAPI, Node.js (Express), Django, Flutter, PyTorch

Cloud & DevOps: AWS (SageMaker, Lambda, Bedrock, API Gateway), GCP, Docker, Kubernetes, Terraform, Airflow, Spark

Databases: MongoDB, Redis, SQL, Neo4j, ChromaDB, DynamoDB

AI/LLM Tools: LangChain, OpenAI, Hugging Face, LLaMA, GPT-4, n8n, MCP, Prompt Engineering, RAG systems, Figma

Other Skills: Cloud Infrastructure, design patterns, System Design, Distributed Computing, CI/CD, Microservices Architecture,

Context Engineering, Object Oriented Programming, Agile, cloud technologies, Data Modeling, software development life cycle.