

GAURAV DAMA

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PROFESSIONAL SUMMARY

Results-oriented engineering student with hands-on experience building AI-powered systems, backend services, and cloud-native applications across enterprise and startup environments. Skilled in Python, C++, Java, React, Node.js, PyTorch, and modern cloud tools, with practical experience developing RAG pipelines, MCP-based agentic workflows, OCR/vectorisation systems, and scalable production applications. Strong foundation in software engineering, automation, and AI integration, with a track record of delivering tools that reduce manual effort, improve system reliability, and support real-world engineering teams across both startup and enterprise environments

EDUCATION

Texas A&M University - College Station

Bachelor's, Electronic Systems and Engineering

- Minors in Computer Science and Cybersecurity

August 2022 - December 2026

PROFESSIONAL EXPERIENCE

Oracle

Software Engineering Intern

- Developed AI-powered, agentic pipelines using MCP tools to automate incident analysis and reduce processing time for on-call engineers.
- Integrated LLMs with enterprise APIs and diagnostic systems to support multi-step data retrieval, summarisation, and root-cause investigation workflows.
- Deployed AI services through Oracle's Shepherd CI/CD pipeline, supporting automated testing, builds, and controlled releases.
- Part of the team that migrates second-generation Oracle Millennium document-imaging and Large Semantic Object components to Oracle Cloud Infrastructure.
- Participated in the development of an OCR and vector-embedding pipeline for medical documents, enabling structured extraction, semantic indexing, and AI-assisted retrieval.

May 2026 - August 2026

Kansas City, MO, USA

Oracle

OCI (Oracle Cloud Infrastructure) Intern

- Designed and implemented AI-driven automation tools that streamlined data analysis workflows, enabling large language models to process and analyze structured datasets.
- Built a Python/Flask client application integrating with backend APIs to test RAG pipelines and improve chatbot reliability.
- Developed a data preprocessing and indexing system for complex spreadsheet data, allowing AI models to efficiently search, summarize, visualize, and forecast trends using techniques such as random forest regression.
- Created a MCP framework that connected AI models with enterprise data sources, incorporating prompt-engineered workflows to enable intelligent multi-step reasoning, while ensuring compliance through data masking solutions.
- Gained hands-on experience with Docker containerization, asynchronous Python APIs, HTTP streaming architectures, and prompt tuning.
- Presented technical demos and findings to cross-functional teams, highlighting how AI and automation reduced manual workloads and improved time-to-resolution in enterprise settings and assisted the adoption of the tools built.

May 2025 - August 2025

Santa Clara, CA, USA

TrekEvo

Software Engineer Intern

- Designed and maintained a robust backend infrastructure for a live, production-scale application, enhancing system performance and scalability.
- Spearheaded comprehensive testing initiatives using Jest and TDD practices, reducing bugs by 90%.
- Optimized data operations with MongoDB and DexieDB, resulting in improved response times.
- Collaborated with front-end teams leveraging React to deliver seamless, user-centric functionality across app.
- Developed and implemented an organizational standard for code documentation, streamlining maintenance and accelerating team onboarding by up to 40%.
- Gained experience working in the fast-paced, high responsibility environment of a startup and delivered in a high responsibility role.

December 2024 - March 2025

Remote

PROJECTS & OUTSIDE EXPERIENCE

vocabcat.app - SAT/ACT practice app - [Link to project](#)

- Built and deployed a production grade, vocab learning platform using FastAPI, React, and React Native, serving web and iOS clients from a secure backend.
- Designed a cloud-native, stateless backend deployed on Google Cloud Run, enabling horizontal scaling, safe rollouts, and containerized deployments.
- Implemented LLM-assisted SAT vocabulary generation pipelines, producing definitions, contextual usage, and nuanced distinctions, stored as versioned, database-safe JSON.
- Engineered MySQL schemas with Alembic migrations to support non-destructive schema evolution and guaranteed preservation of user learning progress.
- Built REST APIs for learning sessions, progress tracking, and daily recommendations, designed for adaptive learning and future monetization features

Vantabeat Media Player application - [Link to project](#)

- Built vantabeat, a native macOS media player using SwiftUI, AVFoundation, Python/FastAPI, and FFmpeg, supporting local playback, imports, playlists, EQ rendering, cut editing, and reactive visuals.
- Architected a modular local-first system separating playback control, observable UI state, API client logic, and backend audio services, with the media engine launched as a private child process using dynamic ports and per-session token auth.
- Implemented end-to-end media workflows for local audio uploads, YouTube/SoundCloud imports, metadata/artwork extraction, playlist management, queue/history playback, rename/delete, and save-to-library actions.
- Engineered an FFmpeg-powered audio pipeline for EQ presets, dynamic range compression, stereo widening, limiting, and rendered cuts, synchronized with AVPlayer controls and custom SwiftUI visualizer modes

CERTIFICATIONS AND COURSES

NVIDIA Deep Learning Institute Fundamentals of Accelerated Computing with CUDA, Oracle Generative AI Professional, CompTIAA Security+, Oracle Cloud Infrastructure Foundations, Microsoft Azure Data Fundamentals, Python PCEP, Oracle Machine Learning for Autonomous Database, Math Behind ML

SKILLS

Artificial Intelligence & Machine Learning: Machine Learning, PyTorch, TensorFlow, Computer Vision, AI Automation, MCP Server Development, HPC, LLMs, Jupyter, Parallel & Distributed Computing, GPU Programming (Optimization + Acceleration)

Programming Languages & CS Fundamentals: Java, C/C++, JavaScript, Typescript, Ruby, SQL, Bash, Python, Data Structures & Algorithms, Discrete Math, Embedded Programming, ARM Assembly, TCP/IP, OSPF, UDP

Full Stack & Application Development: React.js, Next.js, AngularJS, Node.js, Flask, Django, Backend Development (REST APIs), Full Stack Development

Cloud, DevOps, & Infrastructure: Docker, Kubernetes, Jenkins, Git, Tomcat, Postman, Vercel, Linux, Computer Networking, Microsoft Azure

Databases, Testing & Software Engineering Practices: MongoDB, Database Design & Maintenance, JIRA, MATLAB, Software Testing (Automation, JEST, TDD), Spreadsheet Modeling (Excel, Numbers, Sheets)