

Adit Khandelwal

✉ adit.khandelwal@gmail.com

☎ (925) 699 6369

🌐 aditk.com

in aditkhandelwal

🔗 aditkhandelwal

Skills

Programming Languages: Python, C/C++, Java, SQL, JavaScript (HTML/CSS)

Machine Learning & Data: Scikit-learn, PyTorch, OpenCV, NumPy, Pandas, BKT

Frameworks & Tools: FastAPI, Flask, Streamlit, React, Node.js, Git/GitHub, Linux, Supabase

AI & LLM Anthropic Claude API, LLM Integration, AI Agents, ReAct, Tools, Prompt Engineering, RAG

Languages: English (Fluent/Native), Hindi (Fluent/Native), Japanese (JLPT N4)

Projects

Wuthering Waves Agentic Assistant [Link](#) [🔗](#)

July 2026 - Current

React, TypeScript, Supabase, Anthropic Claude API, YOLOv8, TensorFlow.js

- Built and shipped an **AI-powered build planner** for Wuthering Waves (ARPG) that stores users' character builds and grounds agent advice in their own saved data; live to real players, iterating on feedback
- Engineered a custom-built **LLM tool-calling agent** (Supabase Edge Function) with **4** structured tools, **RLS-scoped** execution to prevent cross-user data access, and a single-streamed-request architecture
- Trained and deployed a computer-vision model (**99.5% mAP50**, **100% recall**) client-side via **TensorFlow.js** for screenshot data entry, then fixed a **30x** latency regression (**9.6s → 0.3s**)

Sensei AI - Adaptive Japanese Learning Platform

Apr 2026 - Jun 2026

Python, FastAPI, PostgreSQL, React, Anthropic Claude API, Supabase

- Designed and built a **full-stack agentic AI tutoring platform** using a **Claude-powered ReAct agent** with tool calling to personalize lessons, select review items, and grade open-ended responses in real time
- Implemented a custom Bayesian Knowledge Tracing (BKT) model tracking per-item mastery across **57k+ curriculum items** with spaced repetition; agent reads live learner state via tools to adapt instruction
- Architected dual-model pipeline using **Claude Sonnet 4.6** for lesson generation and **Haiku 4.5** for grading with **SSE streaming** for real-time delivery, balancing response quality with latency and cost

Experience

Owligator

San Francisco, CA

Software Engineer - Computer Vision

May 2025 - Nov 2025

- Developed a **real-time computer vision pipeline on Luxonis DepthAI cameras**, detecting wine label regions and running **OCR** on detected areas to extract structured bottle metadata using a **YOLOv8 model**
- Implemented **PyTorch U-Net label segmentation** and edge-based preprocessing to isolate label regions, improving OCR accuracy and reliability of downstream feature extraction
- Engineered a **multi-signal record matching system** combining blob geometry, OCR text similarity, and custom IDs, using similarity scoring and matching algorithms to automatically deduplicate inventory records

Relanto (AI-First Lab)

Fremont, CA

Software Engineer Intern

Jun 2025 - Aug 2025

- Developed a **Natural Language to SQL web pipeline** enabling non-technical staff to **query sales and marketing data in plain English**, accelerating data exploration and decision-making
- Increased **system reliability and consistency** by applying **prompt engineering and error handling**, reducing failed queries and ensuring stable analytics across company-wide datasets
- Optimized backend performance to achieve faster query response times by refining the NL2SQL pipeline with **Ollama + Phi4-mini**, **FastAPI**, and **Streamlit**, supporting near real-time analytics

UC Merced Office of Information Technology

Merced, CA

ServiceNow Student Technology Consultant

Jul 2024 - Jan 2026

- Delivered production ServiceNow request forms and automations (**UI policies, client scripts, knowledge bases**), partnering with stakeholders to validate requirements and ensure high-quality releases
- Improved **reliability and response times** by automating IT workflows with **JavaScript & ServiceNow Flow Designer**, resolving **100+ cross-departmental tickets/requests** in an **Agile environment**

SmartGrid Laboratory

Merced, CA

Undergraduate Researcher

Jan 2025 - Dec 2025

- Generated **10k+ occupancy data frames** by deploying thermal sensor networks across classrooms/labs; troubleshoot data quality issues and ensured repeatable collection runs
- Built Python pipelines to **preprocess, label, and timestamp sensor data** and validate results against ground-truth, enabling reliable occupancy forecasting and simulation inputs

Education

University of California, Merced

Aug 2022 - Dec 2025

BS in Computer Science and Engineering

GPA: 3.62/4.00

Courses: Software Engineering, Intro to Computer Vision, Intro to Machine Learning, Data Structures, Full-Stack Web Development, Algorithms Analysis & Design, Linear Analysis, Vector Calculus, Statistics