

Ayush Sunil Shejwal

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Education

Arizona State University (Honors)

Bachelor of Science in Computer Science (GPA: 3.90 / 4.00)

Tempe, AZ

May, 2026

- **Relevant Coursework:** Data Structures and Algorithms (C++, Python, JS), Digital Design Fundamentals, Mobile Application Dev, Human Computer Interaction, Operating Systems, Found. of Machine Learning, Intro to Theoretical Computer Science, Object Oriented Programming, Prob & Stats, Linear Algebra, Database Management

Experience

Pebbles AI (pebblesai.xyz)

AI/Full-Stack Engineering Intern

August 2025 - Present

Remote

- Architected a high-performance local **RAG** system in **Python/Flask** using **ChromaDB** and **vLLM**, implementing two-stage retrieval (dense embeddings + **BAAI** cross-encoder reranking) to reduce query latency by **95%** (71.8s → 2.5s) while preserving multi-document reasoning accuracy
- Led inference architecture pivot from PowerInfer to **vLLM** with **Qwen2.5-7B-Instruct**, enabling stable **128K**-context serving; built secure Gmail and Outlook ingestion pipelines integrated into a GPU-backed **RunPod** deployment.
- Built a cross-platform **Tauri** desktop app bundling a local Python AI backend via **PyInstaller** with automated provisioning

STILED (thestiled.com)

CTO, Co-founder

April 2025 - Present

Tempe, AZ

- Developed an AI-powered virtual try-on platform with **Gemini 2.5** and **MediaPipe**, integrating fit scoring based on body measurements and skin tone (ITA°/LAB) to generate real-time, anatomically accurate outfit visualizations.
- Built and deployed scalable backend services on **GCP** with **PostgreSQL** and **Firebase**; engineered brand-specific scrapers for **30+** retail websites with automated measurement normalization to support dynamic content.
- Validated product with **50** pilot users (ages 18–31): **89%** Found combined fit+color+outfit suggestions useful, **92.5%** would use while shopping online, featured in **Business of Fashion** and **AllThingsFashionTech**.

ASU Center for Carbon Emission Lab

Aug 2024 – Dec 2024

Research Aide

Tempe, AZ

- Engineered a Python data pipeline using **Plconnect**, **Pandas**, and **datetime** to extract, clean, validate, and process **500+** industrial time-series datasets (CO2 levels, heat, wind, humidity), producing analysis-ready **CSVs**.
- Developed a **Flask** app with RESTful APIs for tag file uploads, processed data retrieval, and automated reporting, reducing manual intervention and streamlining lab workflows by **30%**.

Projects

Market Insights AI, Personal Project | Python, FastAPI, React, TypeScript, GPT-4, VADER, PostgreSQL, TailwindCSS, D3.js

- Built a financial insights platform combining **GPT-4** and **VADER** for AI-powered sentiment analysis and real-time market prediction.
- Integrated Alpha Vantage for live stock data and visualized insights using **D3.js** and **ECharts** for financial graphs.
- Applied **ORM** concepts using **SQLAlchemy** and designed scalable APIs with **FastAPI**, ensuring modularity and speed.

Eventus, LA Hacks | Python, Reflex Dev, Google's Gemini API pro- 1.5, News API

- Developed a news aggregator app leveraging Google's **Gemini** API for **NLP**-based sentiment analysis to mitigate media bias.
- Designed a responsive and UI with **Reflex**, using libraries like **Styled Components** and **Zustand** for state management.

Skills

Programming: Python, C++, JavaScript, TypeScript, Java, SQL, C, HTML, CSS, Sass, Bash

Frameworks: React.js, Node.js, Angular, Flask, FastAPI, TailwindCSS, TensorFlow, PyTorch, Scikit-learn, HuggingFace Transformers, Pandas, NumPy, SciPy, VADER Sentiment

Databases: PostgreSQL, MySQL, MongoDB, Firebase, Supabase

Cloud & DevOps: AWS (Lambda, S3), Azure Cloud, Git/GitHub, CI/CD (GitHub Actions), Linux/Unix, Railway

AI / Machine Learning & LLMs: LangChain, OllamaLLM, ChatOpenAI, ChatAnthropic, embeddings & vector search (Chroma, FAISS), prompt engineering, Pydantic output parsing, OpenCV

Leadership

Senator | **IRA Fulton Schools of Engineering**, ASU- Managing the appropriations team by allocating a budget of **\$300k**- 20k students

Vice President | **Software Developers Association**- Managing finances, event logistics, company relations- 50 club members