Arjun Chaudhary

U.S. Citizen

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Education

Arizona State University Tempe, AZ
Bachelor of Science in Computer Science GPA: 3.9 *Aug 2024 – Dec 2027*
Honors Student, Barrett, The Honors College

Technical Skills

Languages: Python, JavaScript, Java, C/C++, SQL | **Frameworks:** React, Node.js, Express, Flask, FastAPI | **Databases:** PostgreSQL, Supabase | **AI/ML:** PyTorch, OpenCV, scikit-learn | **Tools:** Git, GitHub, Docker, CI/CD, GitHub Copilot | **Environments:** Linux, VS Code

Experience

Backend Software Engineer Tempe, AZ
EPICS at ASU *Aug 2025 – Present*

- Developed a **real-time communication system** enabling doctors to coordinate **ECMO patient transfers** using **Supabase Realtime** and fallback **polling APIs** for message synchronization.
- Implemented a secure **patient registry service** allowing doctors to upload, query, and manage patient data, including geolocation-based **mapping of active ECMO cases**.
- Currently **beta testing** with Mayo Clinic Hospital, Phoenix and Scottsdale AZ

Full Stack Software Engineer Tempe, AZ
EPICS at ASU *Jan 2025 – May 2025*

- Led a 5-person team to build a full-stack web app (**React, Express.js**) for speech-to-Braille conversion, reducing Braille preparation time from **20 minutes to under 2 minutes** (**90% faster**).
- Engineered an AI pipeline integrating **OpenAI Whisper** and a **GPT-based agent**, achieving **95% translation accuracy** for Braille and supporting **100+ prototype users**.
- Designed a hands-free **React** interface with teachers, boosting accessibility and **increasing engagement by 80%** for visually impaired students.

Coding Instructor Folsom, CA
theCoderSchool *May 2023 – Dec 2024*

- Delivered **200+ hours of personalized instruction** in Python, Java, and JavaScript through **1:1 and 2:1 sessions**, teaching algorithms, problem-solving, and OOP to 10+ students (ages 9–17).

Projects

AI Attendance Tracker
React, FastAPI, Python, PostgreSQL, Supabase, PyTorch, OpenCV

- Engineered a real-time **facial recognition pipeline** combining **OpenCV** for face detection and **PyTorch** for embedding extraction and vector comparison, enabling identification in under **200 ms per student**.
- Built a modular **FastAPI backend** and **React dashboard** for attendance visualization and management, saving teachers **5+ hours per week**.
- Deployed a scalable **Supabase/PostgreSQL database** capable of supporting **500+ students** and asynchronous updates across multiple classrooms.

SleepSense
React, FastAPI, Python, PostgreSQL, Supabase, scikit-learn

- Engineered a modular **FastAPI data pipeline** to collect, preprocess, and serve health metrics in real time, powering end-to-end sleep analysis.
- Integrated an **SVM classifier** with **scikit-learn** for disorder detection, achieving **80% accuracy** across **400 samples** while maintaining production-level scalability.
- Optimized **Supabase/PostgreSQL** queries and caching, reducing latency by **50%**, and built a responsive **React dashboard** for trend visualization and user insights.