Pravar Chauhan

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SUMMARY

Software Engineer with experience in AI product development, accessibility automation, backend APIs, and cloud deployment. Currently building a grant-funded Chrome extension that makes STEM simulations accessible for blind and low-vision learners. Seeking to apply product development and customer support skills to drive inclusive product experiences.

TECHNICAL SKILLS

- **Languages**: Python, JavaScript / TypeScript, SQL, Bash, Object Oriented Programming
- **Backend & APIs**: FastAPI, WebSockets, REST, Node.js
- **DevOps & Cloud**: AWS, Docker, Kubernetes, Terraform, Git, GitHub Actions (CI/CD), Linux, Software Architecture
- **AI / ML / NLP**: SpeechRecognition (Google STT), Large Language Models, Context Engineering, Prompt Engineering
- **Databases & Data**: SQLite, SQLAlchemy ORM, Pandas, NumPy, PostgreSQL, Relational Databases
- **Testing & QA**: Pytest, axe-core (WCAG 2.2 AA accessibility), Jira, Software Testing

EXPERIENCE

AI-Powered Accessible Simulation Chrome Extension (LEI PI Grant), ETX, ASU　　　　　　**Oct 2025 - Present**
Developer
- Built a Chrome extension that detected embedded simulation iframes and tracked real-time state across SimCAPI and Unity WebGL experiences, enabling seamless synchronization of simulation data
- Integrated AWS Lambda and FastAPI to deploy an **LLM-powered simulation assistant**, providing real-time voice narration and conversational Q&A for accessibility.
- Designed a **context-managed agent pipeline** enabling controlled variable manipulation and conversational question answering via fine-tuned LLM prompts.

APMAC Consulting　　　　　　**Sep 2025 - Dec 2025**
Software Engineering Intern (Industry-Sponsored Capstone)
- Implemented an ML pipeline that performed exhaustive OLS regression across all feature combinations and evaluated over ten AutoML algorithms using FastAPI, statsmodels, and scikit-learn, enabling end-to-end productivity-analytics workflows
- Built a Help Desk ticketing system with SSO authentication and admin dashboards using Docker and AWS Lambda, consolidating support requests and improving response coordination
- Implemented interactive D3.js visualizations for model insights and reports and deployed the application on AWS using Lambda, API Gateway, and Docker, delivering a functional MVP that allowed stakeholders to explore model results

ASU Center for Education Through Exploration (ETX)　　　　　　**Nov 2023 - Present**
Platform QA & Support Engineer (Student)　　　　　　*Tempe, AZ (Hybrid)*
- Resolved 20+ weekly support tickets across LMS, SSO, and payment systems using HubSpot, maintaining a 4-hour SLA and achieving high CSAT scores
- Executed QA testing on staging and production environments, logging and tracking defects in Jira while collaborating with developers to implement fixes, which shortened release cycles and improved system stability
- Ran regression and accessibility tests, identifying 30+ critical issues before launch; authored SOPs that cut repetitive troubleshooting time by 25%

PROJECT EXPERIENCE

Asclepius-HI - Supermemory Track Winner, VillageHacks 2025 | https://devpost.com/software/asclepius-hi　　　**Nov 2025**
- Built a **memory-augmented conversational healthcare AI platform**, connecting doctors and patients with **context-aware triage and GPT-4–powered Assistant**.
- Shipped dual dashboards: 24/7 patient assistant with contextual recall + clinician portal with longitudinal summaries and alerts.
- Implemented memory-driven feedback loops to improve response relevance and traceability.

Ballsy Voice Assistant | https://ballsy-voice-assistant-y33jmo2jgq-uc.a.run.app/　　　**Jan 2025 - May 2025**
- Built a real-time **conversational AI pipeline** (speech → FastAPI → LLM response) achieving ~1s latency for natural interaction.
- Implemented **intent recognition and command orchestration** using NLP models to power a Siri-like assistant with contextual memory.
- Developed a Siri-like UI with Tailwind animations and persisted user context and settings in SQLite.

EDUCATION

Arizona State University, Tempe, AZ　　　　　　**Aug 2022 - May 2026**
Computer Science (Software Engineering), BS
- **GPA:** 3.88 / 4.0
- **Achievements:** 6x Dean's List awardee since 2022, New American University Scholar ($14.5k/yr)

CERTIFICATIONS

- AWS Certified Cloud Practitioner