

Aarshdeep Singh Nandra

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EDUCATION

Arizona State University — Barrett, The Honors College | B.S. Mathematics (Statistics) |
Expected May 2029
GPA: 4.0

EXPERIENCE & RESEARCH

Applied AI Engineer | ASU Next Lab | Aug 2026 – Present

- Sole software developer on a 3-person team building a **\$15K-funded** mobile AI assistant for dementia caregiving research with ASU's Edson College of Nursing.
- Built the React Native/Expo app and FastAPI backend with conversational AI, Whisper speech-to-text, and neural text-to-speech; tested the prototype with **8+ research and product stakeholders**.
- Built the first known Next Lab application on ASU CreateAI and was featured in lab media; leading a **2-hour applied AI workshop for 15 ASU Prep students**.

Undergraduate Researcher | DaRL Lab, Arizona State University | Apr 2026 – Present

- Architected multimodal evaluation infrastructure across **2 educational-AI research projects**, including extraction, VLM/LLM inference, rubric grading, aggregation, and experiment storage.
- Built an **8-metric** evaluation framework spanning instructional quality, production quality, and learner adaptation, with automated VLM judging and human-evaluation agreement analysis.
- Co-first author of EduCAST, an AAAI manuscript in preparation evaluating closed-loop personalized video generation across multiple baselines, ablations, and efficiency metrics.
- Developing a Concordia-based multi-agent classroom simulator, informed by EduMirror, to model teacher-student interaction and evaluate how closely agent behavior mirrors real classroom patterns.

FURI Research Fellow | Arizona State University | Jan 2026 – May 2026

- Awarded **\$1,500 in FURI research funding** to build VoxProof, a speech-first academic-integrity system using a Chrome extension, Whisper transcription, HMAC-signed proof-of-origin credentials, and backend verification.

AI Systems Engineer | Ender-IT | February 2025 – January - 2026

- Built and internally deployed a recruiting platform used by **3 recruiters**, processing **50+ resumes across 15 job postings** through structured candidate intake and embedding-based job matching.
- Developed FastAPI services for resume parsing, candidate state, retrieval, job management, and recruiter-facing workflows.

InsuranceAI | Full-Stack Insurance Advisory Platform

- Built a FastAPI/React life-insurance platform for customer intake, policy-document analysis, coverage-gap assessment, and broker handoff; validated workflows with 2 licensed insurance brokers.
- Collaborated with a licensed broker to derive premium-calculation relationships from mortality and health/lifestyle data; generated 1M+ synthetic training examples and trained a HistGradientBoostingRegressor — chosen for memory efficiency — to approximate premium estimation for the recommendation workflow.
- Built an embeddable broker-site assistant, admin lead management, site-separated data access, document Q&A, and rate-limited APIs.

CarbonIQ | Best Use of Solana — Innovation Hacks

- Built a Solana-based prototype translating wallet transactions into estimated carbon-impact insights and staking incentives; won **Best Use of Solana**.

Technical Officer | Google Developer Student Club, ASU | September 2025 - Present

- Led **15+ technical workshops averaging ~90 attendees**, with **130+ at the largest**, covering AI, software engineering, UI/UX, and full-stack development; helped organize a **600+ participant hackathon**.

Technical: Python, JavaScript/TypeScript, Java, FastAPI, React Native/Expo, React, PostgreSQL, Supabase, Firebase, REST APIs, LLMs, LangChain, OpenAI APIs, Whisper, vector search, Git, Chrome Extensions