ARSUM NADEEM CHAUDHARY

arsumnadeemch16203@gmail.com • 840 205 6625 • LinkedIn • Portfolio

EDUCATION

Pomona College | Claremont, CA (*Full Financial Aid Scholar*)   *May 2025*
Double Major of Bachelors of Arts in Computer Science and Mathematics   *GPA: 3.8*
<u>Coursework:</u> Data Structures, Algorithms, Big Data, Complex Systems, AI, Neural Nets, Operations Research, Adv Linear Algebra

SKILLS

Python, JavaScript (React, Node), SQL, Java; TensorFlow, Pandas, Snowflake; REST APIs, Flask, Docker, Kubernetes, AWS (EC2 / S3), Google Cloud Functions, Vercel; A/B Testing, Roadmapping, User Research, Data Visualization, Agile Workflows

EXPERIENCE

AI Product Engineer - PyqAI (YC W23)   *June 2025 - Present*
- **Defined and prioritized** the pre-launch roadmap for Mulligan, an integrated insurance automation platform, driving Pyq AI's shift from enterprise sales to Product-Led Growth by designing the **go-to-market funnel, success metrics, and live-demo infrastructure** for scalable self-serve adoption.
- Identified demo latency as top friction point through testing with prospective brokers, then cut latency 10× (150 s → 15 s) by parallelizing cloud functions across Google Cloud and AWS — improving reliability and conversion in pilots.
- Saved clients **~ $700K** annually and enabled **200+** insurance brokers to quote policies **6×** faster (<10 min vs 1 hr) by automating ~90 % of back-office workflows through Docker-containerized RPA microservices.

Software Engineering Intern - Learning Economy Foundation   *Sep 2023 - Dec 2023*
- Streamlined credential generation for **1k+ daily users** by shaping LearnCard's **GPT-plugin vision** and aligning product, design, engineering, and compliance teams to deliver frictionless workflows within privacy and accessibility standards.
- Increased credential issuance by **200%**, boosting learner **retention by 15%** and reducing engineering overhead by **10+ hours/week**, through using automated previews with OpenAI function calling.

Data Engineering Intern - Inabia Software & Consulting   *June 2023 - Aug 2023*
- Enabled pharmaceutical clients (e.g., Allergan Aesthetics) to ensure data integrity for compliance audits and boost processing efficiency by **20%** by building ETL pipelines to ingest/normalize **1 TB** of sensitive health data.
- Improved client-facing communication and **regulator trust** by working with compliance teams to develop NLP models to flag problematic advertising language (e.g., unverified claims).
- Enhanced classification and translation accuracy by **15–20%** across **500K** inquiries, enabling health-care organizations to deliver clearer, faster responses to patients and internal teams, while reducing liability from miscommunication.

LEADERSHIP

Lead College Application Coach | Pomona College Academy for Youth Success (PAYS)   *May 2022 - Aug 2024*
- Led team of **15** to coach **92** underrepresented high-school students over **3 summers** in Pomona's intensive three-year equity mentorship program for STEM & college applications, contributing to placements at **top US universities** and $760k secured in financial aid and scholarships.
- Taught liberal arts–style critical thinking, communication, and problem-solving skills by creating a first-time *Math and Music* **module**, preparing students to thrive in selective university environments beyond technical coursework.
- Built long-term mentoring relationships that connected students with Pomona's resources while teaching **networking, high-performance habits**, and an internal standard of **excellence** to succeed in competitive environments.

RELEVANT PROJECTS

Brain Tumor Classification Model - GitHub   *Jan 2025 - Feb 2025*
- Enabled real-time tumor classification (**<200ms per image, ~96% accuracy**) by designing a high-throughput pipeline with an Xception + custom CNN ensemble to preprocess 1k+ MRI scans.
- Built **saliency-maps** to visualize predictions, improving **clinician trust** in AI medical decision-making.
- Emphasized scope of AI based solutions in pitch to **Google** and **healthcare leaders** at accelerator program.

Twitter Clone Web Application - GitHub   *May 2024 - June 2024*
- Developed **full-stack twitter prototype** to support **1M+ posts**, by optimizing schema design and indexing techniques.
- Deployed for scalability with Docker, Nginx & Gunicorn on AWS using **load balancer** for high-throughput traffic.

Coronavirus Twitter Analysis Project - GitHub   *Jan 2024 - Feb 2024*
- Analyzed **1.1B tweets** in 10+ languages across 20+ countries to create **4 critical visuals**, highlighting **cultural and linguistic differences** in user reactions and demonstrating the power of **data storytelling** for empathy at global scale.

ADDITIONAL INFORMATION

Involvement: Team Lead: UCLA DataFest, 4x AI Hackathons; College Speech & Debate; Music (Balinese Gamelan, solo flutist)
Honors: Silicon Valley Program Scholar; Pomona College Scholar (multiple semesters, 4.0 GPA); Full Financial Aid International Scholar; Sigma Xi Research Honor Society (Math Thesis); Founded First Library at Human Rights Activist Mukhtar Mai's School