Isaac Chacko

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EDUCATION

Texas A&M University, Engineering Honors   College Station, TX
B.S. Computer Science, Applied Mathematics.   *May 2027*
- Relevant Coursework: Data Structures & Algorithms, Computer Organization, Real Analysis.
- Awards: National Merit Winner, Texas A&M President's Endowed Scholar, Dean's Honor Roll.

EXPERIENCE

University Representative   December 2025 – Present
Lockheed Martin Ethics in Engineering Competition   *Bethesda, MD*
- **1 of 4** students representing Texas A&M University in Lockheed Martin's national engineering ethics case competition, featuring teams from **70+** universities across the nation.
- Coordinated with a 6-person prep team, along with relevant professors, researchers, and mentors, to break down the technical, legal, and ethical dimensions of the case study to create a ethical and practical solution.

Logistics Director   October 2025 – Present
tidalTAMU   *College Station, TX*
- Spearheaded one of Texas A&M's largest student-run hackathons, overseeing end-to-end logistics and securing sponsorships/venue support for **300+** hackers, sponsors, and mentors.
- Designed and deployed the TIDALHack 2025 live site and custom judging platform, enabling real-time scheduling, announcements, and project evaluation across dozens of concurrent submissions.
- Coordinated sponsor-led workshops, technical talks, and mentorship blocks while directing judges and volunteers with clear run-of-show instructions to keep a 24-hour event running smoothly.

Undergraduate Teaching Assistant   August 2025 – Present
Texas A&M Department of Computer Science   *College Station, TX*
- Developed critical plagiarism software as a part of the plagiarism subteam to verify **600+** student submissions using C++ fingerprinting algorithms and AI detection software.

Backend Engineer   May 2025 – August 2025
SISO Engineering   *Houston, TX*
- Engineered query optimizations to cut **300 million** row query run times by **73%** and improved real-time streaming scalability across **40+** international edge devices.
- Blew the whistle and saved **1.7 million** records of streaming data via preventative data validation measures.
- Created infrastructure-as-code with Terraform to allow for rapid deployment/provisioning of Grafana workspaces and Azure database resources to standardize operations for present and future customers.

PROJECTS

Fold Forge AI | *TypeScript, Tailwind CSS, Gemini, MCP Servers*   November 2025
- Placed top 5 at HackUTD 2025, the largest 24-hour university hackathon in North America.
- Reduced drug discovery analysis from "month-long experiment design + review cycles" to an interactive 10 second workflow by chaining tool-calling agents over molecular structures and protein–ligand interactions.
- Prioritized **3 million** research papers to 20 high-quality, relevant studies in a single pass, using automated relevance ranking and agentic orchestration to compress what is typically weeks of manual reading into minutes.

Presentation Coach | *Python, React, NextJS*   September 2024
- Won HowdyHack 2024 by building a analytics tool to track and visualize real-time audience retention, empowering presenters with actionable feedback on engagement.
- Leveraged machine vision and speech vectorization to analyze the slide deck and speaker delivery, surfacing key insights under time constraints.

TECHNICAL SKILLS

Web Development: React, NextJS, Vite, Django, Flask, Express, Sockets, Tailwind CSS, Composer, TypeScript
Data Systems: PostgreSQL, KQL, MSSMS, Redis, Prisma, MongoDB, Neo4j, ADX, Grafana, PowerBI, DevOps
Backend Infrastructure: Arch Linux, Terraform, Docker, Kubernetes, AWS EC2, C++, Python