

Isaac Chacko

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EDUCATION

Texas A&M University, Engineering Honors

College Station, TX

B.S. Computer Science, Applied Mathematics.

May 2027

- Taken: **Data Structures & Algorithms**, Computer Architecture, Linear Algebra.
- Taking: Design & Analysis of Algorithms, **Real Analysis**, Partial Differential Equations.
- Awards: **National Merit Winner**, President's Endowed Scholar, Dean's Honor Roll.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python, C++, KQL, SQL, Java, HTML, CSS, Clojure, ClojureScript, Lua

Technologies: Linux, Git, ADX, Azure DevOps, Prisma, Redis, NextJS, Grafana, PowerBI, Godot, Vercel, Django

Emphasis: Databases, Backend Web Development, Data Analysis, Game Design/Development

EXPERIENCE

Undergraduate Teaching Assistant, Audit Committee

August 2025 – Present

Texas A&M Department of Computer Science

College Station, TX

- Developed critical plagiarism software verifying **600+** student submissions using C++ fingerprinting algorithms and AI detection software.
- Mentored fall cohort through "Intro to C++", within weekly lab sessions/office hours, and clarified student misunderstandings between **C++98**, **C++11**, **C++17** version differences, Makefiles, and stack traces via GDB.

Database Engineer

May 2025 – August 2025

SISO Engineering

Houston, TX

- Designed real-time aeroderivative turbine analytics across **50+** turbines (LMS100, LM6000, TM2500) through template JSON Grafana schema and KQL CTEs with Azure Data Explorer.
- Engineered query optimizations to cut **300m+** row query run times by **73%** and improved real-time streaming scalability across **40+** international edge devices.
- Caught and prevented a potential loss of **1.7 million records** of data across 8 separate LMS100 turbines via preventative data validation measures.
- Created infrastructure-as-code using Terraform to allow for rapid deployment of Grafana workspaces and Azure resources for future customers.

Backend Software Developer

September 2024 – December 2024

AggieSEEK

College Station, TX

- Utilized Google OAuth, AWS Lambda, React, and MongoDB to build scalable backend server infrastructure.
- Supported **900+** concurrent users and streamlined course selection for Texas A&M University Aggies.
- Ran AGILE-like meetings (stand-up, scrum) and coordinated assignments across 50+ members.

PROJECTS

Fate Sealed | *Godot, OpenGL, itch.io*

August 2025

- Led the project as Scrum Master, setting sprint goals, adapting deliverables from playtesting feedback, and assigning tasks across **7** multidisciplinary teammates to leverage strengths.
- Optimized history functions to record game state at 200 snapshots/second across varying hardware with minimal lag.

Eulerelo | *TypeScript, Tailwind CSS, Prisma, PostgreSQL, Railway*

March 2025

- Developing a full-stack web app enabling real-time math duels between users, powered by a custom TypeScript socket server, a Prisma-hosted PostgreSQL database, and a Railway deployment for CI/CD within a mono-repository.
- Sole designer of backend infrastructure: utilized singleton patterns, socket connections, and mutex locks to ensure robust matchmaking, instant solution evaluation, and high-concurrency performance.

Presentation Coach | *Python, React, Next.JS*

September 2024

- Received one of only two honorable mentions out of 160+ hackers, 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.