

Isaac Chacko

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EDUCATION

Texas A&M University

Engineering Honors, B.S. Computer Science, Applied Mathematics.

College Station, TX

Aug. 2024 – May 2028

- Relevant Coursework: Data Structures & Algorithms, Design & Analysis of Algorithms, Computer Architecture, and Programming Languages. Discrete Math, Linear Algebra, and Partial Differential Equations.

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

Texas A&M Department of Computer Science

August 2025 – Present

College Station, TX

- Mentored the fall cohort of undergrads through CSCE 120, Intro to C++, within weekly lab sessions/office hours.
- Refined student understanding of tricky concepts like memory allocation, and linked lists, and taught clean coding patterns like normalizing edge cases and using descriptive names.
- Helped students build confidence with essential developer tools by teaching effective terminal usage, how to create simple Makefiles, and how to step through the C++ stacktrace with GDB.

Database Engineering Intern

SISO Engineering

May 2025 – August 2025

Houston, TX

- Designed parametrized common table expressions using KQL and Azure Data Explorer to streamline real time aeroderivative turbine analytics across **50+** turbines (LMS100, LM6000, TM2500).
- Engineered query optimizations and efficient indexing strategies, cutting execution speed when processing the entire **300m+** row dataset by **73%** and improving scalability across **40+** international edge devices.
- Caught a breaking bug (null streaming values) on PROD tables, followed the bug upstream, and prevented a potential loss of **1.7 million records** of data across 8 separate LMS100 turbines.

Backend Software Developer

AggieSEEK

September 2024 – December 2024

College Station, TX

- Utilized Google OAuth, AWS Lambda, React, and MongoDB to build scalable backend server infrastructure.
- Developed a platform designed to streamline course selection for Texas A&M University Aggies.
- Collaborated with a team of 50+ members in the development of a real-time web application.

PROJECTS

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

August 2025

- Published a MVP videogame in Godot as a team within 48 hours for the GMTK 2025 Game Jam.
- Led the project as Scrum Master, setting sprint goals, adapting deliverables from playtesting feedback, and assigning tasks across **7** multidisciplinary teammates to leverage strengths.
- Implemented and optimized a history function to record game state at 60 snapshots/second 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 monorepo.
- 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, NextJS*

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.