

Fawwaz Memon

Houston, TX | US Citizen

832-455-2276 | fawwazm@tamu.edu | linkedin.com/in/fawwaz-m | github.com/dynamic6448 | dynamic6448.github.io

EDUCATION

Texas A&M University

May 2028

Bachelor of Science in Computer Science

GPA: 4.0

- **Relevant Coursework:** Program Design and Concepts, Discrete Mathematics.

EXPERIENCE

Founder & Lead Software Developer

Aug. 2020 – Present

Digital Flight Dynamics

Remote

- Founded and led a global team of 10+ software engineers and 3D artists to develop a free and open-source airliner add-on for Microsoft Flight Simulator, growing a community of over 20,000 followers.
- Engineered a pixel-accurate avionics suite with 40,000+ lines of React (TypeScript), including Primary Flight/Navigation Displays and over 45 interactive systems and flight management pages.
- Simulated core aircraft systems in Rust, compiling to a WASM module to achieve sub-1ms update speeds and enable a consistent 60 FPS across various hardware.
- Spearheaded integration of FlyByWire's FMSv2, synchronizing 200+ real-time flight planning data points and accelerating project timeline by an estimated 12 months.

PROJECTS

SkyLounge (TAMUHack 2025) | TypeScript, React, TailwindCSS, Python, Flask, SQLite

Jan. 2025

- Architected and launched an interactive in-flight entertainment system in 24 hours using Flask, React, and SQLite, delivering live updates for meal orders and flight status.
- Engineered a dynamic food ordering system with SSE for sub-100ms live updates and reduced API requests by 80% via data interpolation for reliable flight updates.
- Managed GitHub version control, coordinating 4 teammates across feature branches and merging 10+ pull requests into a stable build within hackathon constraints.

Smart Clock | TypeScript, React, Rust, Tauri, Linux

Aug. 2024 – Dec. 2024

- Led a team of 6 through development of a smart wall clock prototype, integrating hardware and software for live weather, traffic, and calendar information.
- Developed a scalable Tauri + React web app to display date/time, customizable clock styles, and live updates on a Raspberry Pi 5.
- Integrated REST APIs for up-to-date weather and traffic data to optimize functionality for people's morning and evening routines by providing commute times with 94% accuracy.

React-MSFS Transpiler | Python

Jun. 2024

- Wrote a transpiler using Python to convert React components to MSFS Avionics components, reducing migration time by 75% for 50+ components.

TensorFlow ML Bot | Python, TensorFlow

Mar. 2023

- Trained a TensorFlow ML model on 10,000+ forum messages, reaching 87% accuracy in responses and autonomously resolving 98% of "when" inquiries.

Note Nook | TypeScript, React, TailwindCSS, Firebase

Jan. 2023 – Mar. 2023

- Built a full-stack React note-taking and calendar app with instant cross-device data sync, leveraging Firebase Authentication and Firestore Database for secure, seamless user and data management.

TECHNICAL SKILLS

Languages: C/C++, Rust, C#, Java, Python, JavaScript/TypeScript, HTML/CSS

Technologies: Node.js, Express, React, TailwindCSS, Electron, Tauri, Flask, .NET, Firebase, MongoDB, SQL, TensorFlow, Unity3D, Linux

Developer Tools: Git, GitHub, Visual Studio Code, IntelliJ, Webstorm