

Farhan Mahbub

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EDUCATION

University of Central Florida

GPA: 3.90/4.00

Bachelor of Science in Computer Science + Minor in Mathematics

Aug. 2021 - May 2025

Relevant Courses

Data Structures and Algorithms I & II, Object-Oriented Programming, Artificial Intelligence, Computer Logic & Organization, Processes of Object-Oriented Software Development, Software Engineering

EXPERIENCE

Knight Hacks

Aug. 2023 - Present

Full-stack Developer

- Collaborated with other engineers to create a website advertising the KnightHacks club and UCF hackathons.
- Constructed a simple user form page and utilized tRPC allowing users to create a hackathon profile.
- Tested the hackathon website and patched 2 UI bugs that could impact UX.

Lockheed Martin

Jun. 2023 - Present

Software Engineering CWEP

- Executed embedded software development using C++ and simulations, ensuring robust performance in complex environments, minimizing system errors by 30%, and increasing reliability.
 - Implemented data validation measures on a telemetry internal tool using Python and PyQt, maintaining data integrity and reducing data discrepancies by 20%.
 - Collaborated with engineers to gather and document project requirements, accelerating project development.
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PROJECTS

Code Clash | *TypeScript, Mithril, TailwindCSS, Express.js, Socket.io, MongoDB*

- Operated with 5 other members to create a 1v1 battle game of solving leetcode problems.
- Created a MongoDB schema and developed an API for managing the user's in-game statistics.
- Implemented a match-making system to connect 2 players with an elo rating system using Socket.io.

Review Summarizer | *TypeScript, React, TailwindCSS, Express.js, Next.js, OpenAI, Puppeteer*

- Won Microsoft's "Best Use of Microsoft Semantic Kernel for Improving Shopping Experience" challenge out of 11 teams at KnightHacks.
- Designed an interactive and user-friendly main landing page UI that fits the classical Windows 95 aesthetic.
- Leveraged OpenAI's ChatGPT API to generate a product's pros and cons and an overall consensus summary.

Handy Dollar | *TypeScript, React, TailwindCSS, Next.js, Supabase, Azure, Plaid, OpenAI*

- Secured 2nd place in Google's "Empowering Learners with Technology" challenge out of 104 teams at ShellHacks.
- Leveraged Azure's AI Vision and OpenAI's ChatGPT API to extract and correlate receipt data with transactions.
- Designed an interactive main page UI and utilized the Plaid API to display a list of transactions and analytics.

Overtone | *TypeScript, React, TailwindCSS, AWS, Next.js, Go, OpenAI*

- Created a chatbox UI and seamlessly integrated OpenAI's ChatGPT API to generate engaging responses.
- Utilized AWS Cognito to handle user authentication and authorization to ensure a secure user application.
- Enforced 2 secure AWS Lambda functions with API gateway for managing user CRUD and receiving GPT output.

Find My Professors | *TypeScript, React, TailwindCSS, Next.js, Go, GraphQL, SQL, PostgreSQL*

- Secured 1st place in the KnightHacks projects showcase out of 8 teams.
 - Created GraphQL schemas for structuring the school and course object queries.
 - Implemented and debugged 6 back-end query resolver functions for schools and courses using Go and GraphQL.
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TECHNICAL SKILLS

Languages: Java, Python, C, C++, Go, PHP, HTML, CSS, JavaScript, TypeScript, SQL, GraphQL

Frameworks: TailwindCSS, Node.js, React, Vite, Next.js, Astro, Express.js, GoFiber, Socket.io, tRPC

Tools: Git, GitHub, Figma, Ubuntu, OpenAI, AWS, Azure, Apache, Docker, MySQL, PostgreSQL, MongoDB