

MARZUQ MAZID

Austin, TX

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Education

University of Texas at Austin

Bachelor of Science in Electrical and Computer Engineering

August 2023 – Present

Austin, TX

Relevant Coursework

- Electrical Engineering
- Computing
- Embedded Systems
- Linear Systems & Signals
- Software Implementation
- Digital Logic Design
- DiffEq with Lin Alg
- Matrices with Lin Alg

Experience

Feeling Blessed

July 2024 – Present

Software Engineer Intern

Remote

- Collaborated with a team of interns to integrate alternative payment methods (e.g., PayPal, Google Pay) into the organization's website and mobile app, enhancing user convenience and payment flexibility.
- Led the design and research for a stock donation feature, conducting comprehensive evaluations of UI/UX requirements, API capabilities, platform compatibility, and technical feasibility to identify the best implementation approach.
- Evaluated and recommended best practices for implementing donation functionalities, focusing on streamlining user interactions, enhancing platform integration, and ensuring a seamless user experience.
- Conducted extensive research on optimizing user experience and payment options to improve overall user satisfaction.

Elyceum

June 2021 – August 2021

Web Developer Intern

Remote

- Collaborated with a cross-functional team to design and develop a dynamic organization website, incorporating feedback from web development interns and other departments to meet project goals.
- Developed and maintained web pages using HTML/CSS, ensuring responsive design and optimal user experience.
- Utilized WordPress to manage content and enhance website functionality, implementing plug-ins and custom themes.

Projects

Cairo Crossy Road Video Game | C, ARM Assembly

December 2024

- Developed handheld video game using the MSPM0G3507 LaunchPad microcontroller, integrating hardware components including an LCD display, slide potentiometer, and buttons for user interaction.
- Utilized interrupt-driven software architecture, including ADC for real-time potentiometer input processing and DAC for sound generation, ensuring smooth and responsive system performance.
- Created a modular codebase for custom sprite rendering and multilingual support, emphasizing scalability and adaptability to project requirements.
- Achieved third place in the UT ECE 319K: Introduction to Embedded Systems class competition.

Nueces Mosque Mobile Application | Kotlin, CSS, Firebase

July 2024

- Collaborated with students and alumni to develop a mobile app for the Nueces Mosque, enhancing community engagement and accessibility.
- Built the app's frontend using Kotlin, integrating dynamic features to improve user interaction.
- Utilized CSS for the app's styling, ensuring a consistent and user-friendly interface.
- Implemented Firebase as the backend to manage authentication, real-time data storage, and synchronization.

Hotel Room Reservation System | LC-3 Assembly Architecture

April 2024

- Developed a hotel room availability checking program using Little-Computer 3 (LC-3) assembly language.
- Implemented an algorithm to traverse a linked list data structure using 16-bit architecture to identify available rooms while optimizing memory usage and processing efficiency.
- Designed user input/output functionality, allowing users to select desired rooms interactively.

Buck Converter | Circuit Design, PCB Design, KiCAD, LTSpice

November 2023

- Designed and built a modular buck converter achieving over 90% efficiency to step down voltage levels.
- Tested and validated gate drivers, MOSFETs, and other components using signal generators and oscilloscopes.
- Validated performance under varying loads, measuring key parameters including output voltage and inductor current.
- Troubleshoot and optimized circuit performance, achieving consistent functionality in line with design specifications.

Technical Skills

Languages: Python, Java, C, HTML/CSS, JavaScript, Assembly(ARM and LC-3)

Tools: VS Code, Code Composer Studio, KiCAD, LTSpice, WordPress

Programs: Microsoft Office Applications, Google Workspace, Github