Musaad Hydary

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I am a computer engineering student with a passion for design and full-stack app development, seeking to contribute to dynamic projects and drive impactful solutions within the artificial intelligence and crypto industries.

Education

Queen's University - Stephen J.R. Smith Faculty of Engineering and Applied Science

2021 - Present

• Bachelor of Applied Science in Computer Engineering and Innovation

Engineering Experience

Systems Engineer - Queen's AutoDrive Design Team

2023 - Present

- Designed and implemented a robust network bus for relaying messages within an autonomous car's lighting systems using C++
- Optimized individual lighting components with low-latency data structures to enhance responsiveness of incoming ROS messages

Software Engineer - Queen's AI Hub

2022 - 2023

- Developed a 3D facial landmark detection model using Python and TensorFlow libraries, enhancing augmented reality applications
- Presented to 200+ students at the Canadian Undergraduate Conference on Artificial Intelligence

Full Stack Engineer - Queen's Web Developer Club

2022 - 2023

Designed and deployed a dynamic ReactJS blog with over 100+ readers for a Kingston-based charity

Projects

RISC Processor Synthesis - ELEC 374 (Digital Systems Engineering)

2024

Designing and developing the bidirectional bus, ALU units, control circuitry, and I/O ports for a RISC-style CPU
utilizing Intel Quartus Prime, Verilog, and ModelSim

RapidCraft: Al-Powered Resume Generator - QHacks

2024

• Led the full-stack development of a ReactJS app that takes user inputs to generate a LaTeX resume using ChatGPT's API on a NodeJS backend server

Bookkeepr: Receipt Classifier and Budget Optimizer - QHacks

2023

 Spearheaded the development of a full-stack platform that classifies user's receipts and optimizes their budget using Python optical character recognition, React, Redux, and Firebase

NFT Wishlist - ETH Toronto Hackathon

2022

 Planned and implemented a full-stack application of an NFT wishlist using React, OpenSea API, Moralis, and MetaMask

Other Experience

Management and Event Director - Queen's Music Production Club

2022 - Present

Oversaw the planning of production classes and live studio sessions for 200+ undergraduate students

Mathematics & English Tutor - Kumon After-School Learning Centre

2019 - 2020

• Cultivated a positive learning environment by grading assignments and delivering personalized instruction for 25+ students, spanning from Kindergarten to Grade 8

Skills

- Technical: TypeScript, JavaScript, Java, C, C++, Python, Assembly, Verilog, CUDA, Arduino, Firebase, Vercel
- Design: React, TailwindCSS, Figma, Adobe Photoshop, DaVinci Resolve, SolidWorks, Blender, Cura