MIQDAAD KHIMJI

🌐 miqdaad.com/links

@ miqdaad.khimji@gmail.com

📞 (647) 880 - 2532

📍 Vaughan, ON

PROGRAMMING

PYTHON 3
Flask • API • OpenCV • Pandas • MicroPython

C/C++
Arduino

GIT
Github • AWS CodeCommit • Azure DevOps

OTHER:

MATLAB

Docker • Docker-Compose

GNU/Linux • MacOS • Windows

Liquid Language Programming

Power Query / M Language

HARDWARE

3D PRINTING (FDM)
GCode Manipulation • Hardware Tuning

ARDUINO / ESP
Circuit Design • Controls (C++)

RASPBERRY PI
Raspbian OS • Circuit Design • Controls (Python)

MACHINE OPERATION
Woodshop • CNC

OTHER:

Circuitry and PCB Design

PC Hardware and Assembly

DESIGN

FUSION 360
Part Design & Assembly • Simulation • Animation

POWER BI
Data Visualization • Data Modelling • DAX

OTHER:

CATIA (Beginner)

Adobe Illustrator / Affinity Designer

Experienced aerospace engineering student with a focus on problem-solving and a passion for the industry. Seeking a summer internship to apply knowledge and skills to real-world projects and contribute to the advancement of the field.

EDUCATION

BEng in Aerospace Engineering
*at **Toronto Met. University** (formerly Ryerson)*
September 2019 – Present

- GPA: 3.7, Dean's List.
- Majoring in the Spacecraft stream.
- Completing a minor in Physics.

EXPERIENCE

Research Assistant
*at **Aerospace Intelligent Mechatronics Labs**, **Toronto Met. University***
August 2022 – Present

- Researching efficient methods to achieve thrust vectoring with 6 DOFs on a drone experiencing a high turbulence environment.
- Created CAD models in Fusion 360 for various design proposals.
- Conducted CFD, FEM, and structural analyses using Ansys and Fusion 360.
- Experienced in drone manufacturing using 3D printing and similar technologies.

Data Engineering Intern
*at **Bombardier Aerospace**, Toronto, ON*
May 2021 – August 2022

- Analyzed, edited, and reported on aircraft maintenance manuals, service bulletins, and engineering drawings.
- Created statistical models to analyze aircraft flight data being used for a machine learning predictive maintenance project.
- Worked within the AGILE methodology to help implement an Azure Datalake, and generate other data pipelines in Python for deployment on AWS EC2.
- Wrote ETL processes in Python, SQL, and Power Query (M Language), using APIs to interface with platforms like SAP, Azure, Power BI, Power Automate, and more.
- Performed studies in data analytics to support aircraft aftermarket material logistics and forecasting.
- Presented outputs with the creation of data visualizations in Power BI.

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PERSONAL APTITUDES

CREATIVE PROBLEM SOLVING

MULTILINGUAL PROFICIENCY

ANALYTIC THINKING

ORGANIZATION

INNOVATION

Propulsion Specialist

at **Helium Aero**, *Toronto, ON*
September 2019 - February 2021

- Worked within a student team to optimize the propulsion system on a VTOL personal aerial vehicle (EMAV drone).
- Helped design testing rigs in Fusion 360 to determine the optimal distance between coaxial propellers, maximizing thrust.
- Aided with the carbon-fibre lay-ups to create the chassis for display at NASA's GoFly competition in Silicon Valley, California.

Digital Media and Marketing Analyst

at **Office Coffee Solutions Ltd.**, *Concord, ON*
July 2019 - September 2019 • March 2020 - September 2020

- Enhanced customer experience through data-driven changes to the e-commerce's web front-end, implemented through Liquid and HTML/CSS code.
- Managed digital marketing presence through SEO and SEM.
- Created digital content for email and social media campaigns.

ENGINEERING PROJECTS

Robotics

- Leading a small team on development of an autonomous wheeled robot based on Raspberry Pi and Arduino.
- Developed cartography, localization, and navigation algorithms.
- Designed and 3D printed parts with Fusion 360 and FDM.

Aerial Vehicles

- Designing and FPV tricopter, utilizing tools and technologies like the Pixhawk, Raspberry Pi, MAVlink, and Ardupilot.
- Experience with drone design and control technologies.

Computing

- Developing an AI image upscaling application using open-source GANs for image enhancement.
- Deployed CV recognition and navigation algorithms on a cloud AWS EC2 instance for faster computation, accessible via REST API for local robots.
- Hands-on experience with AI, GANs, CV, and cloud deployment.

Networking and IoT

- Implemented a full home network with a pfSense router on a custom-built mini pc, a NAS server, IoT devices built on Arduino, and more.
- Configured VLANs and firewalls.
- Deployed server apps and scripts for smart home control.
- Experienced in network engineering, router config, device management, and IoT implementation.