

TAMZEED QUAZI

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🌐 [LinkedIn](#)

🔗 [GitHub](#)

📁 [Portfolio](#)

Education

University of British Columbia

Sep 2021 – Apr 2026

BSc. Combined Computer Science and Statistics Major - Dean's List

Vancouver, British Columbia

Coursework: Algorithms and Data Structures (C++), Computer Hardware and Operating Systems (C)

Experience

Software Developer Co-op

Jan 2023 – Aug 2023

Tetra Tech

Vancouver, British Columbia

- Automated an alert system with Python to notify users of potential hazards that could damage their assets
- Led the Next.js and Flask development for allowing users to upload, save, and interact with their GIS files
- Integrated new technology to the stack, reducing GIS search times by 30% across 10,000+ data points
- Used React and Python to automate internal processes to initialize and synchronize Azure storage and databases significantly improving productivity
- Assisted in developing machine learning models by creating datasets and assessing accuracy

Projects

Air Quality Monitor | React, TypeScript, Python, Flask, C++, GPT-4

[Github](#)

- Created an air quality monitor web application that provides real-time feedback on air quality metrics and potential health risks
- Read air quality data from sensors connected to an Arduino then ported readings to the front end through a web socket built with Python
- Developed a dashboard with React showing sensory data with time-series graphs and location on Google Maps
- Created a Flask back end to make requests to GPT-4 to interpret the data and assess for potential health risks

GestureCV | Python, OpenCV, Google MediaPipe

[Github](#)

- Wrote a Python program to control my laptop using computer vision with Google's hand detection model
- The user controls their mouse based on their index finger location relative to their webcam
- Implemented gesture to trigger clicks and shortcuts

AI Form Tracker | React, TypeScript, TailwindCSS, TensorFlowJS

[Github](#)

- Created a web app to review exercise form when training alone and check for optimal joint path
- Utilized React and TensorFlow to run a pose-detection model on the user's webcam to track form, count repetitions, and trace joint path based on user selection
- Added features to take screenshots or record webcam feed and download the recording after an exercise

Skills

Languages: Python, Java, TypeScript, JavaScript, HTML/CSS, C++, C, SQL, R

Technologies/Frameworks: React, Node.js, Linux, Flask, PostgreSQL

Developer Tools: Git, GitHub, Docker, AWS EC2, Azure Cloud, Postman, Jira, Confluence

AI/ML: OpenCV, TensorFlow, MediaPipe, NumPy, SciPy, Scikit-learn, Matplotlib

Extracurricular

Simulation Software Developer

Sep 2023 – Present

UBC Solar Design Team

- Designed a genetic algorithm with Python to simulate car physics models in race conditions to optimize speed
- Developed a script to tune hyperparameters of the genetic algorithm using random search and grid search
- Created a Python CLI to manage GIS and Weather APIs for the race and cache the result for future simulations
- Implemented a dashboard on an Electron app with React to run simulations and graph strategy results