Tamzeed Quazi

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Experience

Tetra Tech   Vancouver, British Columbia
Software Developer Co-op   *Jan 2023 - Aug 2023*

- Coordinated in a small team to communicate new tasks/goals, bugs, optimization opportunities, and expectations for upcoming client meetings using **JIRA** in an **Agile** development cycle
- Helped develop and test **machine learning** segmentation models to detect water bodies in satellite images, and created visuals and collected metrics of our models which **impressed stockholders** during client meetings
- **Reduced** average pipeline process time to fully process an entry by **~90%** and **optimized** polygon searches of **100,000+** data points with KDTrees and **PostgreSQL**
- **Automated** an alert system with **Python** to notify clients of potential flood events that could damage their assets
- Developed the **front-end** integration and **API** endpoints to allow users to upload and interact with custom files on FusionMap
- Implemented time-series view on FusionMap, allowing users to view blended satellite images over an area over-time
- Extensively documented my work on multiple projects (with **Confluence**) to aid in training for future co-ops

Club Experience

UBC Solar Car Design Team   Vancouver, British Columbia
Simulation Software Developer   *Sep 2023 - Current*

- Developed an **Electron** client to run simulations using **React** that graphs strategy-relevant data over time and maps race paths
- Allowed for custom parameters to be passed from the front-end to run the **Python** simulation module in the back-end
- Used **NumPy** to calculate for car energy changes at different tick times from regenerative breaking and low voltage systems

Projects

AI Exercise Form Tracker | *React.js, TailwindCSS, TypeScript, TensorFlowJS*

- Utilizes **React** and **TensorFlowJS** to run a pose-detection model in the browser on the user's webcam feed to track form, count repetitions, and trace joint path based on user selection
- User's can record their exercises, download the recording once finished, or take screenshots of their webcam feed
- Added a togglable view of the detection model and webcam, and currently supports tracking push-ups, pull-ups and squats

Personal Website | *Next.js, TailwindCSS, Typescript, Netlify* | tamzeedq.netlify.app/

- Created a personal portfolio website containing an about page, project showcase, resume, and contact information
- Built using **Next.js** framework, styled with **Tailwind CSS**, and hosted on **Netlify**
- Incorporated responsive design to account for mobile view

Fitness Tracker | *Java, Java Swing, JUnit, UML*

- Tracks your diet and workouts for a week including calories, protein, and personal notes using **OOP** and developed a GUI interface with Java Swing
- Created UML diagrams to demonstrate relationships between different classes and ensured functionality with JUnit testing

Education

University of British Columbia   Vancouver, British Columbia
BSc. Combined Computer Science and Statistics Major - Dean's List   *Sep 2021 - Apr 2026*

Coursework: Software Construction (**Java**), Algorithms & Data Structures (**C++**), Data Science (**R**), Computer Systems (**C**), Computer Hardware and Operating Systems (**C**), Applied Linear Algebra

Technical Skills

Programming:	Java, Python, HTML, CSS, JavaScript, TypeScript, C++, C, SQL, R
Frameworks and Database:	React.js, Next.js, Electron, Flask, PostgreSQL
Testing/Environment/Tools:	JUnit, Jupyter Notebook, Jira, Confluence, Git, GitHub