DAT BUI

📞 437-259-2406   ✉ dhqbui@uwaterloo.ca   in Linkedin   ⚙ Github

Education

University of Waterloo   **Sep 2022 - May 2026 (expected)**
*Candidate for Bachelor in **Computer Science**, Combinatorics and Optimization minor*
Coursework: Algorithm Design, Data Structures, Object-Oriented Programming, Functional Programming, Compilers

Technical Skills

Languages: JavaScript, TypeScript, Java, C, C++, Python, SQL, Bash, HTML, CSS,
Tools\Frameworks: Spring Boot, React.js, Node.js, Angular, Bootstrap, SQL Developer, REST APIs, Azure DevOps, Git

Experience

Web Developer   **May 2024 - Present**
University of Waterloo - Center for Work-integrated Learning   *Waterloo, CA*
- Developed responsive course pages and custom interactions utilizing **Bootstrap, HTML, CSS, JavaScript**, ensuring seamless integration into **D2L Brightspace** platform
- Conducted QA tasks to ensure website accessibility compliance while uploading and organizing content in LEARN

Software Developer   **Sep 2023 - Dec 2023**
Ontario Ministry of Transportation - Digital Solutions Branch   *Toronto, CA*
- Engaged with established **Swagger-based RESTful API** endpoints for efficient job invocation
- Utilised **SQL** to analyse 50,000+ data records for extensive testing and error checking
- Engineered an **Azure pipeline** to automate test execution to implement the CI/CD process
- Wrote **15+** automated tests (using **Postman**), integration tests, and UAT tests to debug API endpoints

Software Lead   **May 2023 - April 2024**
University of Waterloo Product Management Club   *Waterloo, CA*
- Led a job posting automation project using **Beautiful Soup** for web scrapping and **MongoDB** for database management
- Utilized **React.js** with **Bootstrap** for developing frontend interface of the club's website
- Led a team of 5 software developers in an agile framework, utilizing GitHub for efficient project management

Projects

Terminal Rogue | *OOP, C++, GDB* [GitHub]
- Collaborated with a team to develop a multi-level Rogue game by using C++, Linux for command line purpose, X11 as image rendering tool and UML diagram for project planning
- Applied Objected Oriented Programming (**OOP**) concepts with **Observer design pattern** for developing game features and utilized **shared pointer** to efficiently manage memory

RevenueOpt | *React, TypeScript, CockroachDB, Flask, Python* [Devpost]
- Collaborated in a team of 4 to create a full-stack application for SAP Challenge at **ConUHacks**
- Built a schedule optimization program to maximize business revenue using statistics and algorithm
- Used **Cockroach DB** for serverless database construction to store user data and visualize using graphs

Personal Website | *HTML, CSS, JavaScript, Bootstrap* [Website]
- Wrote **Python** commands for automation of adding 100+ files efficiently and created a **Bash script** for file renaming, saving 220% time
- Utilized **CSS** to designed and implemented responsive UI components for any display models

Awards

2nd Place in Ontario's Halt the Hack : Hackathon by The Government of Ontario's Cyber Security Division
Hypatia Math Contest - Canada's National Honour Roll: Top 2%, school champion medalist