Staisha Neville

Computer Engineering

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EDUCATION

University of Waterloo

Candidate for BASc. Honours, Computer Engineering

Sep 2021 - Apr 2026 Waterloo, ON

SKILLS

Programming languages: C/C++, C#, SQL, XML, HTML/CSS, JavaScript

Frameworks/Tools: VS Code, Visual Studio, Visual SourceSafe, MySQL, Oxygen XML, MS Office

Linguistic Knowledge: Expert fluency in English and French

PROJECTS

Lost Reindeer game, C++ | VS Code | Github €

Mar 2022

- Created a text-based guessing game where players explore a map in search of a target
- Optimized computing power through OOP and dynamic linked lists to store location data
- Handled X, Y-coordinate data in multiple functions using pass-by-reference variables
- Employed bitmasks to mark map locations as searched, unsearched, or out of bounds
- Debugged the program with loops and recursive functions to prevent invalid inputs
- Enhanced the game's visual appeal with colourful graphics using C++ libraries

Personal Website, HTML/CSS/JavaScript | VS Code | Brackets | Github ♂ Jan 2022

- Developed a full-stack website to showcase my projects, experience, and education
- Applied GitHub API to dynamically generate and elegantly display the list of projects
- Enhanced appearance using animations and frontend development with CSS and JavaScript

Shape Solver, C/C++ | Platform.io | GitLab | STM32Cube

Dec 2021

- Designed a software-controlled puzzle game on the STM32 Nucleo F401RE microcontroller
- Created a multidimensional array to store game information, including Morse code words, difficulty levels, player guesses, and correct answers
- Utilized the STM32Cube device driver code to output Morse code words through an LED
- Validated the player's input by retrieving the answer from the multidimensional array

Discover Tesla, C# | SQL | SQLite | .NET Framework | Microsoft Visual Studio ℰ

- Built a Windows Forms application inspired by Tesla's official website
- Deployed a database using SQLite DB Browser to store Tesla's car models' specs
- Established SQL database connectivity to display a comparison chart of Tesla's models
- Authored SQLite queries to display information about each model upon user request
- Implemented a responsive frontend using Visual Studio's user interface elements

EXPERIENCE

Website Coordinator | Electrical and Computer Engineering Society

- Managed the University of Waterloo's Electrical/Computer Engineering website
- Compiled information such as events, announcements, and resources onto website pages
- Collaborated with the Marketing Vice President to design and launch new features
- Partnered with the class representatives to manage academic pages and calendars

Technical Writing Intern | Matrox Imaging and Video

Jan - April 2022

- Documented software and hardware products distributed by Matrox Imaging and Video
- Updated the function reference and user guide of the Matrox Imaging Library
- Collaborated cross-functionally with engineering teams to discuss new features
- Troubleshot syntax and runtime errors occurring in the web user guide's XML files
- Reported misinformation and redundancies to maintain the quality of written material
- Composed clear descriptions, paying attention to detail, grammar, and consistency