

Uday Daroch

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EDUCATION

University of Canterbury

Christchurch, NZ

Bachelor of Software Engineering with Honours

Feb. 2022 – Nov 2025

Christchurch Boy's High School

Christchurch, NZ

year (9 - 13) NCEA Level 1, 2 and 3

January 2017 – December 2021

PROJECTS

Cycleways | *JavaFX, SQLite, Gradle, Leaflet, GeoJSON, OpenStreetMap API, Git*

Aug 2023 – Nov 2023

- Developed a cycling application utilizing raw crash data from Waka Kotahi (800k entries)
- Implemented advanced filtering and sorting for improved user experience
- Integrated route crashes onto the map with optimized clustering and lazy loading
- Utilized GraphHopper API for accessing bike route data stored as GeoJSON
- Constructed a robust and user-friendly interface using JavaFX and SQLite
- Employed MVC and Spiral models for development
- Ensured high quality with rigorous testing using Cucumber and JUnit

Ecom website | *JavaScript, PHP, HTML, CSS, Bootstrap, MySQL, Git*

Dec 2023 – Jan 2024

- Developed an e-commerce website with separate functionalities for admin and users.
- Implemented secure user authentication with signup option and session-based login/logout.
- Enabled product browsing, cart management, and order placement for pickup or delivery.
- Utilized MySQL database via PHP for storing user data and product information.
- Implemented secure password reset mechanism using SMTP protocol with auto-generated tokens.
- Admin functionalities included product management and insights for popular items.
- Designed responsive layout using HTML, CSS, and Bootstrap 5.3.

Messaging Chat App | *React.js, Flask, Socket.io, Git*

Feb 2024 – Feb 2024

- Developed a real-time messaging application allowing multiple users to join rooms and exchange messages using React.js for frontend, Flask and Socket.io for backend.
- Inspired by coursework and self-learning, the app facilitates seamless communication between users in a session-based environment.

Algorithm Visualizer | *Bootstrap, HTML, CSS, JavaScript, Git*

Feb 2024 – Feb 2024

- Created a simple algorithm visualizer using Bootstrap, HTML, CSS, and JavaScript, focusing on sorting algorithms learned in university.
- The visualizer serves as a practical tool for understanding and studying sorting algorithms, providing a hands-on learning experience.

Portfolio Website | *Bootstrap, HTML, CSS, Git*

Dec 2023 – Jan 2024

- Designed and developed a personal portfolio website using Bootstrap, HTML, and CSS, showcasing personal information, projects, and social media links.
- The website serves as a professional online presence, highlighting skills, experiences, and projects outside of university coursework.

Embedded System Pong Game | *AVR-GCC, AVR-Objcopy, DFU-Programmer, C, Git*

Oct 2023 – Oct 2023

- Implemented a Pong game for embedded systems with LED matrix displays, featuring paddle control, collision detection, and scoring mechanisms.
- Utilized AVR-GCC, AVR-Objcopy, and DFU-Programmer for compiling and uploading the game code onto the embedded device.

TECHNICAL SKILLS

Languages: Java, Python, C, MySQL, JavaScript, HTML/CSS, php

Frameworks: React, Flask, JUnit, CucumberTesting

Developer Tools: Git, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse, MySQL Workbench, Bootstrap

Libraries: NumPy, Matplotlib