

NELSON LOOP

Basc. Computer Engineering, University of Waterloo

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TECHNICAL SKILLS

- **Java** (14 months)
- **C++** (8 months)
- **Ruby on Rails** (4 months)
- **JavaScript** (4 months)
- **HTML, CSS** (4 months)
- **TypeScript** (2 months)
- **Unity, C#** (2 months)
- **React, Angular**
- **AWS**
- **Git, GitHub**

PROFESSIONAL EXPERIENCE

Autonomous Robotics Software Development Co-op - Swap Robotics **September 2022 - December 2022**

- Used JavaScript, HTML, CSS, and the MUI library to improve and add to a dockerized React application.
- Created REST APIs interacting with AWS S3 Buckets as well as Prisma with a PostgreSQL database.
- Worked with and integrated the Google Maps JavaScript APIs into the React application.
- Used Jest to create unit tests for REST APIs.
- Set up GitHub Actions to SSH into an AWS EC2 Instance and run various commands within the instance.
- Experience in Scrum development processes, along with ClickUp for tickets and organization.

Junior Developer - Tuq Inc. **January 2022 - April 2022**

- Used Ruby on Rails, along with Angular, TypeScript, and HTML to develop an application.
- Created REST APIs for applications and tested them using Postman
- Implemented unit tests and Swagger API documentation.
- Implemented Sorbet for a Ruby on Rails application.
- Used Active Record to set up models and tables for a database.
- Met with clients to discuss specifications for applications, and designed ERDs based on those specifications.

PROJECTS

2D Grid-Based Strategy Game (Unity and C#) **Sept 2022 - Oct 2022**

- Learned Unity and C# to create a 2D grid-based strategy game. Utilized Jira for tickets and organization during development. The game can be found here: <https://nelsonl2903.itch.io/grid-tactics>.

Aim Trainer (Java and JMonkeyEngine) **Feb 2021 - Apr 2021**

- Designed and coded a 3D FPS aim trainer game and independently learned JMonkeyEngine. A video of the game can be found here: <https://www.youtube.com/watch?v=HGbwkaFUqVM>.

Tic Tac Toe Algorithm (Java and JFrame) **Feb 2020 - June 2020**

- Coded a Tic Tac Toe game. Designed and implemented an efficient algorithm that is able to tie or beat the user with a 100% success rate. Independently learned about and implemented a GUI using JFrame.

ACTIVITIES AND INTERESTS

- **Curling and Baseball:** Played on a baseball team for 8 years, and on a curling team for 4 years. Team captain for 2 years of curling where I developed teambuilding and communication skills in a leadership role.

EDUCATION

University of Waterloo (Candidate for Bachelor of Applied Science, Computer Engineering)

2021 - 2026