

Lily Ni

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Technical Skills

- **Programming Languages** | C++, C#, C, Python, Java, HTML/CSS, JavaScript
- **Technologies** | Unity 3D, React.js, Node.js, Google Cloud, Firebase

Projects

LingoVision | [Devpost](#) | [GitHub](#)

September 2022

- Developed a translation device using eye-tracking glasses with text detection and audio playback capability
- Implemented text selection algorithm with optical character recognition in **Python** using **Google Cloud Vision API**
- Awarded **Hack the North 2022 Finalist** and **Most Innovative Eye Tracking Application** out of **1000+ participants** and **200+ projects** at Canada's largest hackathon

Space Invaders | [GitHub](#)

March 2022

- Created a game using **Java** and **Swing** which includes multiple levels, custom animations, and powerups
- Designed the game architecture and developed the game elements using **Object Oriented Programming**

Aortta | [Demo](#) | [Devpost](#) | [GitHub](#)

January 2021

- Developed an all-in-one messaging web app with **Node.js** and **React.js**, supports Microsoft Teams and Slack
- Integrated Slack using its **Real Time Messaging and Web APIs** and configured the user authentication system

Matrix of Heroes | [Demo](#) | [Devpost](#) | [GitHub](#)

June 2020

- Created an educational game using **Unity 3D** and **C#** which helps students practice arithmetic in an engaging way
- Integrated the **Firebase Realtime Database** to store player information (login credentials, game progress, etc.)
- Awarded **Best Beginner Hack** out of **1300+ participants** and **140+ projects** at Def Hacks Virtual 2020 hackathon

Experience

Co-Director | Hack+Policy Foundation

October 2020 - August 2022

- Organized hack+policythons, challenging youth to develop technology and public policy to tackle world issues
- Led a team of **15+ organizers**, managed task distribution, sponsorships, marketing and event logistics resulting in two successful events: MERGE 2021 (**500+ participants**) and MERGExIndia (**200+ participants**)

Software Developer | FIRST Robotics Competition Team

September 2018 - June 2020

- Created a graphical user interface using **Python** for enhanced driver visibility during competition
- Awarded the **Innovation in Control Award** out of **40 teams** at the 2019 FIRST Ontario Provincial Championship and competed in the 2019 FIRST International Championship

Programming Teacher | CodeReach

September 2018 - June 2020

- Taught **Python** and **C++** to classes of **20+ students** through weekly workshops
- Designed lesson plans, created educational projects, and assisted students with problems they encountered

Education

Candidate for Bachelor of Software Engineering

September 2022 - April 2027

University of Waterloo | GPA 89.64%

Waterloo, ON, Canada