# Ishan Baliyan

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## SKILLS

**Languages:** Java, Python, Scheme, JavaScript, HTML, CSS, Racket
**Frameworks/Libraries:** React, Node.js, Express.js, TensorFlow, Bootstrap, Selenium, MaterialUI
**Tools:** Git, Firebase, MongoDB (MERN stack), Heroku, Netlify

## EDUCATION

**University of Waterloo**                                                    Waterloo, ON *(Sep 2021–April 2026)*
Honors Bachelor of Computer Science | *Major GPA: 3.9/4.0*
*Faculty of Mathematics Scholarship $10,000 | Awarded to Top 5% Faculty Students Based on National Contest Scores*

## EXPERIENCE

**Google Computer Science Summer Institute (CSSI) |** *CSSI Scholar*                    *July 2021*
- 4-week intensive computer science program organized by Google.
- Built web applications with **Firebase, Oath2 Google authentication,** and **JavaScript** taught by Google engineers.
- Completed product design, development, and software engineering interview training.

**Harvard University Wadduwage Lab |** *Remote Research Intern*                    *July 2020 – Present*
- Developing a **Python Deep Learning** algorithm using convolutional neural networks to denoise images of organisms.

**UWaterloo Social and Intelligent Robotics Research Lab (SIRRL) |** *Research Assistant*    *July 2020 – Present*
- Researching applications of Social Robotics in healthcare (under Prof. Dautenhahn, Canada Research Chair).
- Conducting data extraction and systematic review of 8000+ papers with professors and researchers for publication.

**MVS Systems Inc. |** *Software Consultant Intern (part-time)*                    *Aug 2019 – March 2020*
- Paid contract partnered with United Nations for robotics Research & Development.
- Designed **Arduino** autonomous driving on prototype robot for detecting landmines in 3rd world countries.

***FIRST* Robotics Team 2706** | *Software Engineer for Autonomous Driving*        *September 2018 – July 2021*
- World Division Finalist in <u>*FIRST* Robotics Competition World Championships</u> (**Top 35 from 4000+ teams**) in 2018.
- Programmed autonomous systems in **Java**, while using tools such as **GitHub**, Scrums, Kanban, and Gantt charts.

## PROJECTS

*PiggyBank***:** <u>**Winner of University of Waterloo Engineering Hackathon (EngHack 2021)**</u>
- Designed web application in **React** with backend of **MongoDB**, **Node**, and **Express** to build a banking app for youth.
- Placed as Hackathon Project **Winner** and won **$1000 prize** against nearly 300 participants.

*Google Chalkboard***: Google CSSI Final Project**
- Developed a chalkboard education web app with **Firebase database, Oath2 Google authentication,** and **Python Machine learning** model with **TensorFlow JS** on the MNIST dataset.
- Project gained nearly <u>50 unique clones</u> from Google CSSI, the most in a cohort of more than fifty students.

*Travel Map React App***, Full MERN stack app**
- Built login-based review system of world map locations with **MongoDB, Express, React, and Node** (**MERN stack**).
- **Web scraped** live-feed of world map from node libraries and deployed app using **Heroku**, **Netlify**, and **Vercel**.

## LEADERSHIP

**National *FIRST* Robotics Youth Council |** *Youth Council Rep.*                *September 2019 – July 2021*
- Led and Represented <u>25,000 members</u> of FIRST Robotics to organize National Hackathons, Conferences (+speaker), Summer camps, cleanups (featured in news), and interviews with President of 3M Canada and CEOs.

***SHAD* Summer Program at Ryerson University |** *SHAD Fellow, Team Lead*            *July 2019*
- Intensive 4-week program at Ryerson University, with daily lectures from Nobel Laureates, CEOs, and Professors.
- Led team to invent battery recycling project that won **First Place** in Startup competition against 10 teams.

**Interests:** Skydiving at 13,500 feet, novice at chess, travelling across different countries