

Lucas Jin

✉ lucasjin.hh@gmail.com ☎ +1 (343) 987-3903 🌐 lucasjin.co in linkedin.com/in/lucas-jin 📷 LucasHJin

Projects

- Lips Lips Revolution** - *Hack the North 11* 📄 *Sept 2024*
- Created a lip syncing game with a userbase of over **50 people** using the **Symphonic Labs Mamo API** and **OpenAI embedding models**.
 - Reduced latency from **30** seconds to **7** seconds by **reverse-engineering** the Mamo API with websockets.
 - Utilized **Next.js** for rapid full stack development and QR codes and **MongoDB** for user authentication/tracking.
- StudySphere** - *UOttHack 6* 📄 *Mar 2024*
- Developed a social studying platform with features such as account creation, user authentication and posting features using **Flask**.
 - Defined users and their questions/answers with a local **relational database** made with **SQLAlchemy**.
- FRC 8729 Attendance Bot** 📄 *Nov 2024 - Present*
- Utilizing the **Discord API** with a **SQLite database** and **Python** to track attendance of a team with **90+ members** with a clock-in/clock-out mechanism.
 - Integrating a custom calendar format attendance spreadsheet with the **Sheets API** for more accessibility.
- Drama Production Manager** 📄 *Dec 2024 - Present*
- Developing a web application to automate attendance tracking and scheduling for school drama productions (estimated **100+** users) for ICS4U project using a **PERN** stack.
 - Experimenting with **Docker** and **Agile development** for more efficient collaboration and quicker deployment.

Skills

Languages: Javascript, Typescript, Python, C++, Java, SQL
Frameworks, APIs and Services: React.js, Next.js, Node.js, Express, FastAPI, Firebase, MongoDB, PostgreSQL
Tools: Github, Git, VSCode, L^AT_EX, Docker

Experience

- Software Team Lead** 📄 *Ottawa, Ontario*
FRC Team 8729 - Sparkling Youth Robotics Club *Jun 2023 - Present*
- Instructing **19** software members in the development of a command based robot using **Java** and **OOP** principles.
 - Integrating software like **computer vision** pipelines and **PID tuning** with hardware systems for precise commands.
- Programming Intern** 📄 *Remote*
STEM-E *Sept 2024 - Present*
- Using a **FERN** stack to automate the processing of **1000+** volunteers.
 - Following an **agile methodology** with user stories and **DoD** criteria to manage a quality project workflow.
- Software Team Lead / Mechanical Member** 📄 *Ottawa, Ontario*
Vex Team 50226A - Merivale Vex Robotics *Oct 2023 - Feb 2025*
- Developed autonomous and teleoperated functionality despite hardware limitations using **C++** and **OOP**.
 - Gained hands-on experience with **pneumatics** and designing custom mechanisms, including a conveyor belt **gearbox**.

Education

- University of Waterloo**, Waterloo, Ontario *Sept 2025 - Future*
Incoming BCS, Honours Computer Science with Co-op
- René Descartes National Scholarship and President's Scholarship of Distinction (\$22k)
- Merivale High School**, Ottawa, Ontario *Sept 2021 - Jun 2025*
International Baccalaureate DP *Average: 97.2*
- Clubs:** Math (Executive, 2021-Present), Mock Trial (Executive, 2022-Present), CS (Member, 2021-Present)

Awards

- Best Use of MongoDB Atlas (*Hack the North 11 - Sept 2024*) 📄
- (Solo) Best Home Track Project (*Lazy Hacks - Dec 2024*) 📄
- FRC Team 8729 - Division Champion (*FIRST Ontario Provincial Championship Technology - Apr 2024*) 📄
- Honor Roll Group 4 (*Waterloo Hypatia Mathematical Competition - Apr 2024*) 📄
- 60/75 on CCC Junior - Distinction (*Canadian Computing Contest - Feb 2023*) 📄