Lucas Jin

Education

Merivale High School

Sept 2021 - Present

International Baccalaureate DP

Average: 97.5

o Clubs: Math (Executive, 2021-Present), Mock Trial (Executive, 2022-Present), CS (Member, 2021-Present)

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 - UOttaHack 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.

ZenithAI (Ongoing) ☑

Oct 2024 - Present

- Developing a web application to summarize the most recent scientific literature on muscle hypertrophy using **React.js** for a responsive front-end and **Firebase** for user authentication and database.
- Integrating the PubMed Central API to fetch the information and OpenAI API to process and summarize.

Skills

Languages: Python, C++, Javascript, HTML/CSS, Java, SQL

Frameworks, APIs and Services: React.js, Node.js, Firebase, MongoDB, Sheets API, Discord API, OpenAI API

Tools: Github, Git, VSCode, L⁴TEX

Experience

Software Team Lead 🗹

Ottawa, Ontario

FRC Team 8729 - Sparkling Youth Robotics Club

Jun 2023 - Present

- Leading the development of a command based robot in Java using OOP principles.
- Instructing 19 software members on version control systems, OOP, wiring, PIDs and feed forward/backward.

Software Team Lead 🗹

Ottawa, Ontario

Vex Team 50226B - Merivale Vex Robotics

Oct 2023 - Present

Sept 2024 - Present

- \circ Developing autonomous functionality and mechanisms like driving and intake with C++ and OOP.
- Created a custom **gearbox** for a conveyor belt climber.

Programming Intern

Remote

• Aiding to implement a web application to automate the processing of 1000+ volunteers.

- Integrated React. is with Node. is and Express to write data to an attendance spreadsheet based on Firebase data.
- Following an agile methodology to manage a quality project workflow.

Coding Circle Instructor

Remote

Auxilium Mentorship

Oct 2024 - Present

- Teaching coding concepts in Python, web development, and AI to a class of 30+ students in grades 7 to 10.
- Supporting a collaborative learning environment through attentive supervision and instructional materials.

Awards

STEM-E

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