

# THOMAS LUC

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## SKILLS

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Languages	Python, Javascript, C++, HTML/CSS, SQL
Technologies	Git, Figma, PostgreSQL, VS Code, Blender, RESTful APIs
Frameworks	Node.js, React.js, Express.js, Three.js, anime.js

## PROJECTS

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### Room Designer Bot Node.js, Express.js, Three.js, Blender, PostgreSQL, RESTful APIs

- Pioneered a bot to display hand-crafted **Blender** furniture models in Discord by developing an **Express.js** server to perform in-browser physics-accurate rendering using **Three.js**.
- Interfaced with Discord API to create over **20** bot commands for user customization and interaction.
- Constructed a relational **PostgreSQL** database to store user data to be accessed by bot and server.

### Hackathon Website Node.js, React.js, Three.js, Figma, Chakra UI, GSAP, Git, Blender

- Prototyped with **Figma** and crafted web animations using **GSAP** library for seamless transitions.
- Leveraged **React.js**' modularity and used component library **Chakra UI** for efficient development.
- Forged intricate 3D models in **Blender** and rendered them in real-time to browser using **Three.js**. Deployed **Git** version control with feature branches for collaborative development with partner.

### osu! Beatmap Generator Python, Pygame, Selenium, RESTful APIs

- Engineered a video game tool using **Python**, created animated GUI using **Pygame** for enhanced user experience.
- Interfaced with osu! API for services and used **OAuth 2.0** to verify users, while integrating **Selenium** and **WebDriver** to automatically download game files by simulating browser interactions.

## EXPERIENCE

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### President of Programming Club Sep 2021 - Jun 2022 Iroquois Ridge High School Oakville, Ontario

- Lead all club operations and gave frequent **Python** programming lessons to over **100** students.
- Created an extensive curriculum in **Python** to mentor beginner and advanced students on video game design.

### Developer and Communications Lead for Hackathon Aug 2021 - Dec 2021 Iroquois Ridge High School Oakville, Ontario

- Wrote sponsorship letters to organizations earning a total sponsorship valued **\$1000** in cash and merchandise.
- Developed hackathon website attracting hundreds of visitors and over **80** registrations for event.

### Main Classroom Assistant Sep 2018 - Sep 2021 Kumon Institute Oakville, Ontario

- Spearheaded **hundreds** of math tutoring sessions with Grade 1 - 12 students teaching arithmetic, algebra and calculus.
- Crafted individualized lesson plans for students while accommodating concerns of students' parents to enhance academic performance.

## EDUCATION

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### Candidate for Computer Engineering, University of Waterloo 2022 - PRESENT