

SHIVAM SHARMA

DEVELOPER · PROJECT MANAGER · STUDENT

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SKILLS

Languages Swift, C/C++, JavaScript, HTML/CSS, Bash/Unix, Python, Java
Tools VSCode, XCode, Git, Notion, CAD, Adobe CC, MS Office Suite
Frameworks Node.js, SwiftUI, UIKit

EDUCATION

UNIVERSITY OF WATERLOO

2020 - 2025

Candidate for B.A.Sc. in Systems Design Engineering, Honours, Co-op

Waterloo, ON

- Awarded the Ontario Professional Engineers Foundation for Education Entrance Scholarship based on outstanding high school record and involvement in extracurricular activities, awarded each year to two students within the Faculty of Engineering.
- Acquired the President's Scholarship for 94% cumulative average.
- Currently taking Digital Computation - C++ Programming.

EXTRACURRICULARS

DISCORD VERIFICATION & MANAGEMENT BOT

2020

Personal Project - [GitHub Link](#)

- Developed an e-mail verification and server management system with Node.js to securely validate the identities of incoming users for previously open chat systems. Currently being used across multiple servers with 300+ daily users.
- Designed and implemented data storage models into file-based databases to parse, access, and save information while remaining fast and reliable.
- Investigated and implemented new programming practices like async/await, and promises to create a robust server-side program in two weeks.

TERRA - INTERACTIVE TERRAIN GENERATOR

2020

Personal Project - [Project Link](#)

- Created a WebGL and JavaScript based interactive terrain generator in order to explore low-level graphics rendering techniques.
- Optimized the generator by implementing a caching to reduce the number of operations per frame by about 90% and improve efficiency across all platforms.

ADAPTIVE A* PATHFINDER

2020

Personal Project - [Project Link](#)

- Built a representation of the A* path-finding algorithm with JavaScript to document the process of transforming complex algorithms into code while using principles of object-oriented programming.
- Implemented dynamic scaling to allow the project to adapt according to the size of the browser-window and improve scalability across mobile and desktop devices.

COMPETITOR WITH SUPREME ROBOTICS (TEAM 6632)

2017 - 2019

FIRST Robotics Competition

- Helped implement a custom stance switching wheel base for the robot to provide stability and agility to optimize for a higher score.
- Optimized the agility of multi-directional rollers, and the stability of rubberized wheels by implementing a 6-wheel design that allowed us to switch dynamically based on the situation.
- Worked with a team to design and manufacture specialized hardware using shop tools on a rushed six week timeline.

EXPERIENCE

LEAD IOS DEVELOPER & PROJECT MANAGER

2019 - 2020

Phoenix Dev.

Toronto, ON

- Coordinated the creation of an app based navigation system built to guide newcomers across a property with an indoor positioning system.
- Managed and corresponded with a team of seven people to prototype and showcase the viability of our solution on a city-wide scale for 500+ venues with 200,000+ daily visitors (specifically targeted to education for incoming students and events).
- Implemented tools like Notion and led peer-programming initiatives, and organised development using a project roadmap based on a simplified Agile Scrum Framework to create a productive online environment.
- Designed and integrated data models, and implemented an interface based on Apple's Human Interface Guidelines using Swift and UIKit as well as modern frameworks such as SwiftUI.

SUPPORT STAFF

2016 - 2018

Toronto District School Board

Toronto, ON

- Operated A/V equipment such as light consoles and audio boards while renting out facilities to third parties for special events to orchestrate performances and presentations for hundreds of attendees.
- Utilized problem-solving and management skills to formulate plans for events and ensure that complex plans ran smoothly with on-the-spot decision making.