Saswata Gupta

2A SOFTWARE ENGINEERING

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skills

Languages	Platforms/Tools	Libraries
• C / C++	• MongoDB	• React
• C#	• Arduino	• Redux
• Python	• Git	• NodeJS
• JavaScript	• Linux	• Flask
• HTML / CSS	• Shell	• OpenGL
• Java	• MySQL	• Swing
• SQL	• Android	

projects

Scavenger Hunt 2017
Full Stack Location Based Application

🔧 **Python | React | Android**

- Architected and implemented a Flask server to handle socket and API requests, and store player and game data
- Designed a web interface using React and Redux to simplify creating and tracking scavenger hunts
- Developed an Android app which connects players to live scavenger hunts and uses geolocation to validate progress

OpenGL Physics Simulator 2016 - 2017
Graphically integrated sandbox

🔧 **C++ | OpenGL | SDL**

- Implemented a purely Object-Oriented design with various classes functioning in conjunction.
- Designed a responsive program to function effectively on any machine

Quest Cabochon 2016
Web Browser Role Playing Game

🔧 **JavaScript | NodeJs | Phasor**

- Utilized NodeJs and SocketIO to support real-time multiplayer gameplay.
- Designed a friendly UI and UX for a smooth transition into the game and its features
- Implemented an efficient path finding algorithm to determine movements of certain entities

experience

Software Engineer May - August 2017
Thalmic Labs | Waterloo, ON

- Developed software in **C++** to interface with hardware through WebSocket technologies
- Implemented **Python** tools to automate production processes, reducing human error and improving throughput
- Spearheaded transition to web GUIs using **React** + **Redux** in favor of outmoded desktop tools using **QT** + **C++**

Hackathons 2016-2017

- Demonstrated collaboration, creativity and time management when creating projects to demo to judges
- *PennApps, HackWestern, MasseyHacks*

awards

Bronze Medalist at Canadian Computing Olympiad 2015

The top 25 scores from the Canadian Computing Competition are invited to participate in the CCO

Euclid Math Contest Entrance Scholarship 2016

Awarded for placing in the top 10% in the 2016 Euclid Math Contest hosted by the CEMC

Dean's Honors List 2017

Awarded to students enrolled in an honors program with a Term Average above 87%.

education

University of Waterloo 2016 - 2021

Honors Software Engineering Co-op
Candidate for Bachelors of Software Engineering