Saswata Gupta

2B SOFTWARE ENGINEERING

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experience

Backend Engineer
January - April 2018

Bespoke Metrics | Toronto, ON

- Developed and updated a **Python** Flask backend to provide data and improve security for 10 new client facing widgets
- Implemented a mock data library using best **OOP** practices to populate a website with over 1000 data sets
  This website was used to demo to 7 high-profile clients
- Revamped **Docker** deployment process to use **Ansible**, reducing deployment times and improving DevOps capability

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++**

projects

Scavenger Hunt

🔧 **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

🔧 **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

🔧 **JavaScript | NodeJs | Phasor**

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

skills

Languages:	Python	C/C++	JavaScript	Scala	SQL	Bash	Git	C#	Java
Frameworks:	Flask	Django	NodeJS	OpenGL	React	SocketIO
Technologies:	MongoDB	PostgreSQL	Docker	AWS	Heroku	Ansible	Postman

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

education

University of Waterloo
2016 - 2021

Honors Software Engineering Co-op

Candidate for Bachelors of Software Engineering