

# Omar Baranek

2B COMPUTER SCIENCE | 20813831

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## Summary of Qualifications

<b>Programming</b>	C++, JavaScript, C, Python, Bash
<b>Technologies</b>	NodeJS, MySQL, MongoDB, Firestore, ROS, Git, Linux
<b>Web</b>	React, HTML, CSS
<b>Interests</b>	Soccer, Ping-Pong, Swimming, Tech News, Hip-Hop
<b>Soft Skills</b>	Collaborative Problem Solving, Time Management, Communication, Leadership

## Work Experience

### Avidbots

Kitchener, Canada

PERCEPTION SOFTWARE DEVELOPER

May. 2020 - September. 2019

- Developed a benchmark to systematically characterize the performance of depth sensors
- Performed a comprehensive analysis of the sensors and distilling that in a set of atomic tests
- Built an SQL database to reflect the parameters and results of the atomic tests
- Developed a C++ ROS node to automate the evaluation of sensors with PCL and OpenCV

## Projects

### Settlers | C++

Waterloo, Canada

DEVELOPER

Dec. 2020 - Dec. 2020

- Developed a game inspired by Settlers of Catan using C++
- Utilised OOP concepts such as Inheritance, Abstract Classes, Virtual Functions
- Used various design patterns to plan the code such as MVC, Factory, Observer and Iterator

### Subleteer | React | NodeJS | CSS

Waterloo, Canada

DEVELOPER

Aug. 2020 - Aug. 2020

- Utilised the Redux library to manage authorization and global states
- Managed user interface state using React Hooks
- Used Axios to make HTTP calls to the backend RESTful API, created using NodeJS and ExpressJS
- Enhanced the mobile user experience using CSS media queries to make the website responsive

### UWScheduler | Python | Angular | Flask

Waterloo, Canada

DEVELOPER

Aug. 2020 - Aug. 2020

- Developed a web application to view/modify UW schedules using Angular
- Implemented the UI elements using Material/Bootstrap components and handled user data leveraging Reactive Forms
- Created REST APIs (backend) using Flask (python micro framework)
- Parsed JSON responses and implemented the requests library to scrape website data
- Demonstrated object oriented principles such as inheritance/encapsulation in setting up response data objects

## Honors & Awards

2019	<b>School Champion</b> , Placed top of my School for the Euclid Mathematics Contest, and top 25 percent globally	Cairo, Egypt
2019	<b>Highest Honours</b> , Maadi Narmer School (95% average)	Cairo, Egypt
2018	<b>Organizing Committee Award</b> , EBIS Narmer Model United Nations	Cairo, Egypt
2016	<b>Distinction Award</b> , Change The World Model United Nations	New York, U.S.A

## Education

### University of Waterloo

Waterloo, Canada

CANDIDATE FOR B.S. IN COMPUTER SCIENCE WITH SOFTWARE ENGINEERING SPECIALIZATION

Sep. 2019 - May. 2024

- Admitted with President's Scholarship of Distinction ( 95 percent high school average )
- CS246: Object-Oriented Software Development
- CS136: Elementary Algorithm Design and Data Abstraction using C
- MATH235: Linear Algebra 2