

# OMAR BARANEK

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## SKILLS

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Languages: C++, C, JavaScript, Python, SQL, Bash  
Technologies: NodeJS, ExpressJS, React, PostgreSQL, MySQL, MongoDB, Firebase, Git, Linux

## WORK EXPERIENCE

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### Avidbots

*Perception Software Engineer*

Kitchener, ON

May 2020 - September 2020

- Automated unit tests by developing a C++ ROS node with OpenCV and PCL
- Performed a comprehensive analysis of depth sensors to develop a benchmark for performance
- Designed, developed and hosted on AWS an SQL database storing the results of thousands of atomic tests for depth sensors
- Reduced the time taken for sensors' evaluation by over 3 folds

## PROJECTS

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### Constructor C++

<https://github.com/obaranek/constructor>

- Developed a board game utilizing OOP principles such as abstract classes and virtual functions
- Used various design patterns such as Model-view-controller, Iterator and Factory

### Venue Tracker NodeJS, ExpressJS, MongoDB

[https://github.com/obaranek/venue\\_tracker](https://github.com/obaranek/venue_tracker)

- Created a RESTful API using ExpressJS and NodeJS, integrated with MongoDB
- Adhered to authentication and authorization standards using JSON Web Tokens and BcryptJS
- Used the Google Maps API to convert addresses to coordinates and recommend nearby venues

### Subleteer React

<https://github.com/obaranek/subleteer>

- Developed UI by React and sent HTTP calls using Axios to save and retrieve the application state
- Managed authorization of users and application state using React Hooks and Redux
- Implemented UI elements using Bootstrap and handled user data leveraging React Forms

### UWScheduler Python, Flask

<https://github.com/obaranek/UWScheduler>

- Parsed JSON responses and implemented the Requests library to scrape website data
- Created REST APIs (backend) using Flask (Python micro framework)

## AWARDS

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### Euclid School Champion

Placed top of the school for the Euclid Mathematics Contest, and top 25% globally

University of Waterloo

Jan 2019

### Highest Honours

Graduated with 95% Average

Maadi Narmer School

June 2019

## EDUCATION

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### University of Waterloo

Candidate for BCS Computer Science

Waterloo, CA

Sep 2019 - Apr 2024

- President's Scholarship of distinction
- Winter 2020: Term Dean's Honours List
- Spring 2020: Term Distinction

## INTERESTS

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Interests: Soccer, Table Tennis, Swimming, Hip-Hop, Linux