

# Gurpreet Multani

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## SKILLS

### PROGRAMMING

Over 5000 lines:

Javascript • Node.js • Java • HTML5  
Typescript • MongoDB • Shell • CSS3  
C# • C++ • React • Express.js • Next.js  
Mongoose • Bootstrap • Material-UI  
Bulma • Skeleton • Pug • EJS

Over 1000 lines:

Python • Firebase • Redux

### TECHNOLOGIES

Git/Github • Heroku • Netlify  
VS Code • Netbeans • Stripe  
Passport.js • Sendgrid • Mapbox  
Webpack • Postman • Stream

## COURSEWORK

### UNDERGRADUATE

- Digital Computation (C++)  
- Intro. to (Human Centered) Design

### TRAINING / COURSES

- CS50: Intro. to Computer Science  
- Full-Stack Web Development with React  
- Data Structures + Algorithms  
- Intro. to Git and GitHub  
- The Web Development Bootcamp  
- The Modern React Bootcamp

## INVOLVEMENT

### KURIUSHACKS

Created a web application to raise awareness about indigenous territories.

### HACK THE NORTH 2020

Attended many workshops, and worked in groups of 4 to create a medical chat app.

### CATALYST PROGRAM

Engineered a prototype to test the pH of water, and pitched to business leaders.

### QCSYS

Learned advanced physics theories, and performed labs to prove physics laws.

## EDUCATION

### UNIVERSITY OF WATERLOO

#### 1A SYSTEMS DESIGN ENGINEERING

Expected Graduation April 2026

Waterloo, ON Canada

## TECHNICAL PROJECTS

### YELPCAMP | WEBSITE, GITHUB

Dynamic web app for a fictional start up that allows users to add and review campgrounds. Users will be well-informed and prepared for camping trips.

- Built on **MongoDB/Express/Node.js** stack, utilizing **RESTful architecture** with Bootstrap 5 framework for styling
- Implemented **CRUD endpoints** for user comments and campgrounds operations
- Designed server-side user **authorization** and **authentication** middleware for **10** key routes by leveraging **Passport.js** and related submodules
- Prepared app for deployment by adding **security headers**, support against **MongoDB injection**, using .env files to store secret keys, and connecting with Mongo Atlas

### REACT COLORS | WEBSITE, GITHUB

Web app used to create, test, customize, and store color palettes.

- Built using **React/React-Router/Material-UI**, used **client-side routing** to increase page load times by **30%** and improve the user experience
- Applied **"State as Props"** design pattern to improve rate of debugging code by **25%**
- Implemented custom copy-to-clipboard functionality for various color formats (Hex, RGB, RGBA) to improve the user experience
- Refactored code to use React **context API**, **custom hooks**, and **reducers** and utilized **code-splitting** to improve code **readability** and **scalability**

### GOTOURS | WEBSITE, GITHUB, API

Full stack dynamic tour-booking site to view, book, add, and review tours. For persons who love travelling and going on tour vacations.

- Employed **MVC Architecture** with **fat-models/thin-controllers** methodology to create an API containing endpoints for tours, users, reviews and tour bookings
- Utilized advanced MongoDB features such as **aggregation pipeline** and **indexes** to run advanced queries and to optimize the performance metrics of the database
- Designed **custom error handling middleware** to differentiate between **operational** and **programming errors** and to provide users with live feedback to improve UX

### WHERE AM I | WEBSITE, GITHUB

Web app build during KuriusHacks to find which indigenous territories are occupied by the public and spread awareness to protect these territories.

- Built on **Python/Django/SQLite** stack, deployed using **Heroku service**
- Implemented **geolocation API** to get user's current location and find nearest territory
- Integrated **wikipedia API** to get info about native tribes and display it to users

## EXPERIENCE

### CART-MANAGER/STOCKER | WALMART

Jan 2021 – Aug 2021 | Kitchener, ON

- **Managed 6 people** in-charge of refilling carts to increase cart retrieval efficiency by **40%**
- Implemented **Covid-19 safety measures** to disinfect carts to minimize the surface spread of the Covid-19 virus and reduce the number of cases by **15%**

### CUSTOMER SERVICE MANAGER | WHOLESALE CLUB

Nov 2018 – Oct 2019 | Waterloo, ON

- Compiled and printed customer complaints and suggestions, and presented them to the appropriate authorities to improve customer satisfaction levels
- Collected information on agents and other staff performance from customers to make judgment on their performance