

# Gurpreet S. Multani

SYSTEMS DESIGN ENGINEER · UNIVERSITY OF WATERLOO

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## Skills

**Programming** Javascript, Java, C#/C++, NodeJS, Typescript, LaTeX, Python, Bash  
**Web** Express, Next.js, Mongoose, React, Redux, Bootstrap, Material-UI, Django, CSS3, HTML5  
**Technologies** Git/Github, MongoDB, Heroku, Firebase, SQLite, Netlify, VS Code, NetBeans, Postman

## Projects

### Yelpcamp

🌐 Website, 📁 Github

DYNAMIC WEB APP FOR A FICTIONAL START UP THAT ALLOWS USERS TO ADD, RATE, AND REVIEW CAMPGROUNDS.

Jan. 2021

- Built on **MongoDB/Express/Node.js** stack, utilizing **RESTful architecture** with Bootstrap 5 framework for styling.
- Implemented **CRUD endpoints** for commenting workflows and user campground operations.
- Actionable commands are displayed dynamically on the site (edit/delete) for campgrounds and comments, depending on a user's authorization/ownership.
- Designed server-side user **authorization** and **authentication** middleware for **10 key routes** by leveraging **Passport.js** and related submodules.
- Prepared app for deployment on **Heroku** 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.

Aug. 2021

- Built using **React/React-Router/Material-UI**, used **client-side routing** to improve the user experience by increasing page load times by **30%**.
- Applied **"State as Props"** design pattern to improve rate of debugging code by **25%**.
- Refactored code to use React **context API**, **custom hooks**, **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.

Jul. 2021

- Build using **Node.js/Express/MongoDB/Mongoose**, designed Gotours API from scratch based on RESTful architecture, and utilized **Git/Github** for version control.
- Utilized **MVC Architecture** with **fat-models/thin-controllers** methodology to create an API containing endpoints for tours, users, reviews and tour bookings.
- Developed **custom error handling middleware** to differentiate between **operational** and **programming errors** and to provide users with live feedback.
- Utilized advanced MongoDB features such as **aggregation pipeline** and **indexes** to run advanced queries and to optimize the performance of the database.

### Where Am I

🌐 Website, 📁 Github

WEB APP TO SPREAD AWARENESS ABOUT INDIGENOUS TERRITORIES.

Aug. 2021

- Built on **Python/Django/SQLite** stack, deployed using **Heroku service**.
- Implemented **Google Geolocation API** with **Mapbox API** to get user's current location, find nearest indigenous territory, and display a map to users.
- Integrated **Native-Land API** with **Wikipedia API** to get info about native tribes and display it to users.

## Experience

### Cart-Manager/Stocker

Kitchener, ON

WALMART

Jan. 2021 – Aug. 2021

- **Managed 6 people** in-charge of replenishing carts for customer use and increased 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 total cases by **15%**.

### Customer Service Manager

Waterloo, ON

WHOLESALE CLUB

Nov. 2018 – Oct. 2019

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

## Education

### University of Waterloo

Waterloo, ON

B.ASc. IN SYSTEMS DESIGN ENGINEERING

Sep. 2021 – Apr. 2026

- University of Waterloo President's Scholarship of Distinction.
- Coursework: Digital Computation (**C++**), Intro. to (**Human Centered**) Design.