

Gurpreet S. Multani

SYSTEMS DESIGN ENGINEER · UNIVERSITY OF WATERLOO

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Skills

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

Experience

LeapGrad Inc.

Waterloo, ON

FRONT-END DEVELOPER

Aug. 2021 – Dec. 2021

- Identified **web-based user interactions** and developed highly-responsive user interface components via **React concepts**.
- Translated **designs & wireframes** into high-quality code and wrote application **interface code** via Javascript following **React.js workflows**.
- Developed the **latest user-facing features** using React.js and built reusable components & **front-end libraries** for future use.
- Optimized components for maximum performance across a vast array of web-capable devices and browsers.

Tech For Good Inc.

Waterloo, ON

FULL STACK DEVELOPER

July 2021 – Dec. 2021

- Used **Object Oriented Programming** concepts to develop UI components to be reused across the Web Application.
- Designed dynamic and browser compatible pages using HTML5, CSS3, SASS, MVC, Bootstrap, and JavaScript.
- Built backend REST API and **OAuth** with **Node.js, Express.js** and used **Git** for version controlling and regularly pushed the code to **GitHub**.

Prospective Medical Professionals (PuMP)

Waterloo, ON

WEB DEVELOPER

Jan. 2020 – June 2021

- Rebuilt **PuMP website** using **HTML, CSS, Javascript, React**, with **Node.js/Express/MongoDB** for the backend.
- Determined the structure and **design of web pages** based on user requirements and balanced functional & **aesthetic designs**.
- Managed brand consistency throughout the design and maintained & improved the company's website by adding features and functionality.

Projects

Dungeon Shooter

 [Github](#)

2D DUNGEON SHOOTER GAME BUILT USING UNITY GAME ENGINE. GAME CONSISTS OF MULTIPLE LEVELS AND BEAUTIFUL GRAPHICS.

Jul. 2021

- Build using **C#**, created multiple **scripts to handle complex in-game logic**. Utilized **shaders** to create **stunning graphics** with cool effects.
- Designed **complex animations** and audio clips to improve the user-experience.

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.
- 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**, 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

- Built 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, and tour bookings.
- Developed **custom error-handling middleware** to differentiate between **operational/programming errors** and to provide users with live feedback.
- Utilized MongoDB features such as **aggregation pipeline** and **indexes** to run advanced queries and to optimize the performance of the database.

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++**, **Python**, **Linux**), Intro. to (**Human Centered**) Design.