

Dhruv Mittal

2B Computer Science, University of Waterloo

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SKILLS

Languages: JavaScript, C++, Dart, Java, C, Python, HTML, CSS, Bash, R

Technologies: React.js, NodeJS, ExpressJS, MongoDB, Flutter, GraphQL, Jest, Firebase, Firestore, Git

WORK EXPERIENCE

Web Design and Development Intern | Year Zero Studios

Jun – Aug 2020

- Developed initial prototypes of the FindFocus mobile application using **Flutter** and incorporated **40 meditation recordings** using the **Dart** AudioPlayers library
- Increased content views by over 21.7%** by creating dedicated webpages for blogs and podcasts, redesigning marketing graphics, and distributing podcasts on various platforms including Spotify, Anchor.fm, and the company website
- Spearheaded the mindtech.news project, creating the product roadmap, setting progress indicators and task deadlines
- Consolidated market research on **over 500 companies and 100 investors** into a company directory with WordPress.

PROJECTS

Subleteer | MongoDB, Express.js, NodeJS, React

<https://github.com/dhmi19/subleteer>

- Developed a web platform for students to effortlessly find reliable sublets by filters and location
- Incorporated the **Google Geocoding API** to convert string addresses to geocoordinates and store location data as **GeoJSON** objects on the **MongoDB** database, enabling geospatial queries on the **NodeJS** server
- Implemented user authentication with **bcrypt** and **JWT tokens** including user profile image uploads
- Created the frontend with **React.js** and managed the application state with **React Redux** and **React Hooks**

UW Clubs | NodeJS, GraphQL, PostgreSQL, Jest, Apollo-Client.

https://github.com/dhmi19/UW_Clubs

- Developed a **GraphQL** server, connected to a **PostgreSQL** database, using **Prisma v1** to help students review school clubs
- Integrated key features such as **GraphQL** pagination, sorting and fragments to increase code efficiency and reusability
- Tested the project extensively with the **Apollo client** and **Jest** framework to ensure the code is robust

Constructor Board Game | C++

<https://github.com/dhmi19/constructor>

- Utilized OOP principles in **C++** with key design patterns including **Model-view-controller**, Iterator, and Factory
- Implemented a **graph** data structure to store board state, **maps** to store resources and **vectors** to store player data

UWScheduler | Python, HTML, CSS, JS, Flask

<https://github.com/dhmi19/UWScheduler>

- Developed a **Python** algorithm that optimizes class schedules to suggest the most reputed professors without time clashes
- Reduced page load times by 20 seconds** by caching professor names and ratings, received from **Flask** API endpoints

LEADERSHIP

Logistics Member | Tech+ Mentorship

Jan 2021 – Present

- Responsible for event planning, outreach, and marketing of the mentorship program, coffee chats, and community events

Business Member | Watlock Design Team

Sep 2020 – Dec 2020

- Pitched funding proposals to numerous endowment funds to raise over **\$7000**

Co-Founder | Microfinance Service Club

Oct 2018 – Mar 2019

- Co-founded a student service club and organized Bangkok's **first interschool charity hackathon** to raise over **\$3000**

EDUCATION

Candidate for Honours Bachelor of Computer Science, University of Waterloo

Sep 2019 – May 2024

- President's Scholarship of Distinction