

Prajval Malhotra

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Education

University of Waterloo

Waterloo, Ontario

BACHELOR OF COMPUTER SCIENCE, DIGITAL HARDWARE SPECIALIZATION (GPA: 3.7)

September 2020 - May 2024

- **Relevant Coursework** - Object Oriented and Functional programming, Algorithm Design and Data Abstraction, Linux, Testing, Bash Scripting

Skills

Languages C, C++, Python, HTML5, CSS3, Javascript

Frameworks and Tools React, React Native, Tensorflow, Node.js, Git

Experience

Rhetoricon, GoFigure - University of Waterloo

Waterloo, Ontario

FULL STACK WEB DEVELOPER (PART-TIME)

October 2021 - Present

- Migrated components from Ant Design to Material UI
- Involved in development of crowdsourcing citizen game website using Next.js, Typescript, Docker, and a Golang REST API

Trinity Re-Insurance Brokers Limited

Remote

SOFTWARE ENGINEERING INTERN

May 2021 - June 2021

- Created frontend of app with React Native, 100+ users on a daily basis. Made minor changes to previous designs.
- Worked on backend with Node.js, Express.js. Wrote Unit and Integration tests using Jest.
- Worked with the entire project team to balance creative objectives with business needs and technical requirements.

Projects

Covid Aggregator 🗄️

TOHacks

REACT NATIVE, NODE.JS, MONGODB

June 2021

- An app to provide a user with information about available vaccine centres near them, people willing to donate useful resources
- Created REST API with Node.js, Express.js, MongoDB for the Database. Shows data from vaccine centres across the country
- Used React Native to create the frontend. Deployed API to Heroku. 🗄️
- Originally created frontend in a group setting of 3 people for TOHacks, personally pursued the project to make it a fullstack app.

Polynomial operations 🗄️

C++, OOP

October 2021

- C++ program to take input (polynomials) from the cmd line, perform polynomial arithmetic operations based on the commands
- Utilized OOP concepts in C++ like operator overloading, move and copy constructors. Created and tested in a Linux environment.

ASCII Art Animator 🗄️

C++, OOP

October 2021

- C++ program to take input and accordingly render ASCII art in a textual or graphical form.
- Utilized OOP concepts using C++ like polymorphism, inheritance, observer and decorator design patterns

HVAC Controller 🗄️

VHDL

July 2021

- Designed combinational logic component for a home Energy Monitoring Controller
- Created simulations and came up with edge cases to test proper functioning of code
- Utilized VHDL concepts like Structural and Dataflow styles, learnt how to work with software - Quartus Prime

TodoTDD 🗄️

JAVASCRIPT, TEST DRIVEN DEVELOPMENT

August 2021

- Used a Test Driven approach to develop a REST API for a Todo app with Node.js and Express.js
- Created Unit tests and integration tests with Jest, wrote tests for error handling
- Created mock Mongoose models in Node.js with Jest

Nice Chat App 🗄️🗄️

EngHacks

REACT.JS, FIREBASE

June 2021

- Real time chat app, Firebase for Google authorisation, Realtime Database and backend. React.js for the frontend.

Live User Counter 🗄️

DART, FIREBASE

August 2021

- Component which keeps track of when a user opens/exits an app to keep track of the total number of users currently online