# Reezan Visram

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## **Key Skills**

Languages: TypeScript, JavaScript, C++, C, Python, Java, SQL Frameworks/Libraries: React, Node, Express, Flask, Jest, OpenGL

Tools: Docker, Git, MySQL, PostgreSQL, MongoDB

#### Education

University of Waterloo Sept. 2021 - Present

Bachelor of Applied Science in Honours Computer Engineering, Co-op

- 3.9/4.0 GPA, Excellent Academic Standing
- Awarded the Richard and Elizabeth Madter Entrance Scholarship for outstanding students

#### Experience

Red Thread Innovations Jan. 2022 – Apr. 2022

Software Engineering Intern - Co-op

Toronto, ON

- Developed a full-stack application management system and multiple microservices using React, Express, TypeScript and PostgreSQL, used by over 10 companies
- Wrote automated test suites to achieve 99% code coverage using Jest and React-Testing-Library
- Containerized applications and microservices using Docker, and deployed to AWS EC2 environments
- Worked in an Agile team framework, and participated in and led various ceremonies, including 2-week sprints, sprint review, sprint retrospective and daily stand-ups
- Initiated and led discussions about improving workflow and increasing efficiency, leading to increased velocity and quality of deliverables

Tools: TypeScript (React, Express), Docker, PostgreSQL (TypeORM), Jest, AWS EC2

Hack the Northeast Aug. 2020 – Jun. 2021

Frontend Developer

New York City, NY

- Developed the frontend UI of the event website using React (JavaScript) and Material UI used by over 1000 participants
- Created dynamic, performant animations using GSAP.js
- Used Github Actions to deploy to Netlify hosting, leading to 80% faster build times

Tools: JavaScript (React), Material UI, GSAP.js, Github, Netlify

## **Projects**

#### TypeR | TypeScript (React, Node, Express, TypeORM), Python (requests, pony), MySQL, Docker

A full-stack web app that consolidates custom mechanical keyboard components from four major retailers

- Fetches and stores data on over 3500 components in a MySQL database from site APIs in under 1 minute using Python, requests, and ponyORM
- Used Express and TypeORM to build a REST API to send that data to the frontend
- Created a recommendation system that saves buyers over 30% of their money when purchasing components
- Developed a frontend that displays all components by type and price with React

# Fractal Visualizer | C++ (OpenGL, Dear ImGui)

An OpenGL program that renders 4 fully customizable and interactive fractals

- Wrote various vertex and fragment shaders using GLSL to display all fractals
- Optimized Mandelbrot Set drawing algorithms to achieve up to 5000 iterations at 60 fps
- Used inheritance and polymorphism to create independent classes responsible for each fractal
- Displayed information and enabled user to customize fractals using Dear ImGui

## Morse Code Teaching Device | C (PlatformIO)

A device built using the STM32 Nucleo Microcontroller that teaches the user Morse Code

- Interfaced with Hitachi 16x2 LCDs and RGB LEDs to teach the user visual Morse Code, as well as provide feedback on input
- Used a passive buzzer to provide auditory feedback to the user as well as teach the user to listen to Morse Code
- Used a push button and low/high signals to time user input with millisecond margins to determine which letter they chose