

Baizhou Chen

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Skills

- Proficient in **C++**, **Python**, **Java**
- Proficient in **SQL** database
- Experienced in **Git** version control
- Experienced in **React**, Redux, Express, Rest APIs and WebSocket
- Experienced in developing Android Mobile App with **Android Studio**
- Experienced in Data Science Tools like **Apache Spark** with RDDs and DataFrames
- Great teamwork and communication skills

Education

Bachelor of Mathematics, Honors
University of Waterloo, Waterloo, ON
Minor in Computer Science

June 2020

Projects

Pet Trader (React, Node.js, Express, MongoDB, Rest APIs)

- Implemented and designed a pets trading platform with collaboration through GitHub
- Created a database, schemas and CRUD operations with MongoDB
- Consuming REST APIs in React with Axios
- Integrated Material UI as UI library

T-Rex Multiplayer (React, NodeJS, Express, WebSocket, WebRTC)

- Enabled multiple players to join a room to play game and video chat in real-time
- Established a real-time communication backend server through WebSocket and WebRTC
- Generating a universally unique identifier (UUID) for each player to join the game

Covid-19 Big Data Visualization (Python, Spark, pandas, Matplotlib, SQL)

- Analyzing and visualizing large dataset of Covid-19 to present trends of cases and death, and compared total cases and death rates with different countries
- Using DataFrames and SQL to filter out the required data for future analyzation
- Using Pandas and Matplotlib to perform data visualization

Photo Gallery (Java, Android Studio)

- An interactive mobile application that allows users to load images and display these images in a dynamic layout that responds to device orientation.
- Experiences in developing and debugging through Android Studio

Paint (Java)

- Designed asynchronous graphical application with model-view-controller (MVC) architecture
- Implemented the distributed event handling system by using observer design pattern
- Integrated features to allow user to load and save paintings files from hard drives.

Breakout (C++, Xlib)

- Integrated X Window System (X11) to provide graphical user interfaces and input device capabilities
- Implemented realistic paddling physics to provide a visually smooth bouncing animation
- Adapted double buffering to overcome bottleneck issues

OS-161 operating system (C, Bash, Git)

- Modify and implement functions like semaphores, locks, condition variables, system calls and simple virtual memory system in kernel

Experience

Web Developer - MHS Victoria (Victoria, BC)

May 2019 - September 2019

- Implemented a landing page for Pre-Launch stage
- Setup and customize online web store on Shopify
- Customize web components by using Liquid, CSS and Bootstrap4
- Experienced with Domain, DNS, and SSL administration