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# **ZHONGHAO (RICHARD) YANG**

Major in Computer Science, 3rd Year

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## **Technical Skills**

- Programming Languages: Java, JavaScript, TypeScript, Python, C#, C++, C, R
- Frontend Development: React, HTML, CSS, Webpack, Babel
- **Backend Development**: Express, Node, MongoDB, Django, ASP.NET, Entity Framework Core, Xamarin.iOS, PHP, MySQL
- Tools: AWS, Azure, Docker, Git, IntelliJ IDEA, Visual Studio Code

# **Technical Projects**

Werewolf – Personal Jan 2022 – Mar 2022

- Designed and developed a full-stack website using MERN stack for a board game with 6-12 players
- Implemented Firebase into the frontend for authentication and styled the frontend using Bootstrap
- Technologies: JavaScript, React, Express, Node, MongoDB, Bootstrap, Firebase

**Insight UBC** – Academic

Sep 2021 – Dec 2021

- Built the backend that can extract courses and rooms information from zip files consisting of JSON files using fs-extra or HTML files using parse5, and store it locally with formatted JSON files
- Designed a query engine that performs queries based on a given EBNF
- Integrated Google Map API to the frontend to display the shortest path between rooms in UBC
- Implemented Test Driven Development using Mocha and Chai, and used dynamic testing
- Technologies: TypeScript, JavaScript, HTML, CSS, Express, Node, Mocha, Chai, parse5, JSZip.

**Mewmazon** – Academic

Oct 2021 – Dec 2021

- Built a relational database application for an online shopping platform using PHP and MySQL
- Normalized the database in BCNF form, and designed advanced queries align with the website functionalities to help customers and sellers make more insightful decisions
- Hosted the website in an Apache Server and built in a Unix environment
- **Technologies**: PHP, HTML, CSS, MySQL, Oracle Database, Unix, Apache

**To-Do list** – Academic

Oct 2020 - Nov 2020

- Designed and developed a To-Do List program in Java to keep track of the important tasks
- Applied advanced designing concepts including Observable pattern, Iterator pattern, polymorphism, and robustness to handle exceptions
- Developed a GUI using Swing to interact with the data stored in JSON file
- Implemented Test Driven Development using JUnit
- Technologies: Java, JUnit, Swing

## **Work History**

#### **Full-Stack Developer Intern**

Jan 2022 – present

CAE Richmond, BC

• Using Agile engineering practices and various software and web development technologies to rapidly develop creative and efficient solutions that enhance the client customer and employee experience

- Developing features for the new release for both website and mobile app, debugging the existing code
- Designing and implementing a frontend prototype using React and mocking the backend using Docker
- Technologies: C#, JavaScript, ASP.NET, Entity Framework Core, React, Xamarin.iOS, Docker, Azure

## **Full-Stack Developer Volunteer**

Feb 2022 – present

Campus Nutrition Vancouver, BC

- Transitioning the existing backend to a headless CMS system
- Designing and developing the frontend using React
- Technologies: Python, JavaScript, React, Strapi, Django, GraphQL, MySQL

## **Undergraduate Teaching Assistant**

Jan 2021 - present

**UBC** Department of Statistics

Vancouver, BC

- Taught 100-level Data Science courses that use data science tools to summarize, visualize, and analyze data. As well as 200-level Statistics courses that use computers to analyze classical, nonparametric, and robust inferences about means and variances
- Received perfect evaluation scores from 50+ students in the most recent semester in categories including teaching ability, preparedness, and communication
- Taught small groups of students focused on specific parts of the coursework, curated course readings, and relayed student needs to professors

## **Education**

## **Bachelor of Science: Major in Computer Science**

Sep 2020 – May 2024

University of British Columbia

Vancouver, BC

- Member of The Google Developer Student Club
- Received Trek Excellence Scholarship and Faculty of Science International Student Scholarship
- GPA: 4.33/4.33 | Average: 91%

#### **Computer Science: University Transfer Program**

Sep 2019 - Aug 2020

Coquitlam College

Coquitlam, BC

- President of Computer Programming Club
- Dean's List 2020 Spring Semester
- Dean's List 2020 Summer Semester
- GPA: 4.08/4.33

## **Interests**

Reading, Hiking, Board Games, Chess, Piano, Cooking

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