

Edward Xu



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SKILLS SUMMARY

- **Programming Languages:** C/C++, Java, Python, JavaScript, SQL, HTML, CSS, Swift, R
- **Frameworks:** React, Redux, Node.js, Express.js, MongoDB, Vue, Flask
- **CI/CD & Development Tools:** Git, Jira, Docker, EC2, AWS, Heroku, Postman, Android Studio, PyCharm, Figma

WORK EXPERIENCE

Software Engineer - Distributed Database System (CO-OP)

Sept. 2021 – Apr. 2022

Huawei Technologies Canada Co., Ltd.

Toronto, ON, Canada

- Implemented **recovery speed control** feature for Read on Standby (ROS) using **C/C++**, to control consistency between the primary and standby clusters in disaster recovery setting
- Implemented **dead node detection and reintegration** feature for ROS using **C/C++**, to detect if any nodes are down, reintegrate them and let them catch up to the consistency point
- Expanded and finalized test coverage for ROS using **Python**, **Java**, **SQL** and **Bash** tests
- Completed the ROS implementation, improving the read performance from nodes by 17%
- Conducted TPC-C benchmark tests running on both logical and multi-node physical clusters

PROJECTS

FriendSpace (Full stack Web App)

Jan. 2022

- Implemented features such as user authentication (**JSON Web Token**), profiles and post feed
- Tools: **MERN stack**, **Redux**, **RESTful API**, **JSON**, **Bootstrap**, **Heroku**

Constructor Game (C++, OOP)

Aug. 2021

- Led a team of 3 to develop the game Constructor using **C++ (OOP)**
- Tools and Techniques: **MVC**, **Observer pattern**, **Strategy pattern**, **RAII principles**, **inheritance**, **polymorphism** and **Xwindow** for GUI

MiniGameboy (C/C++)

Feb. 2020

- A recreation of the famous game "**Pong**" using **C/C++**, **Arduino**, **SPI**, and **Adafruit_GFX**
- Included a built-in speaker and implemented different levels of AI that the player can compete against

EDUCATION

Candidate for Bachelor of Computer Science, University of Waterloo

Sept. 2020 – present

- Cumulative Overall Average: 92.4/100
- Fall 2020 and Winter, Summer 2021 Term Distinction
- H & M Harris Ent. Scholarship and President's Scholarship With Distinction