

Ri Xin Yang

SOFTWARE ENGINEERING | FULLSTACK DEVELOPER | OPEN-SOURCE ENTHUSIAST

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Skills

Languages JavaScript • Python • Java • C • C++ • C# • HTML • CSS • Bash • SQL

Frameworks React • Vue.js • Node.js • Electron • JQuery • Bootstrap • Cypress

Tools & Technology Docker • Git • Firebase • JIRA • GDB • SSH • Android Studio • Vim • Emacs

Experience

DigitalEd

FULLSTACK DEVELOPER

Waterloo, Ontario, Canada

May 2020 - September 2020

- Used **Vue.js** and **Java** with **JIRA** to modernize a monolithic legacy codebase for the Möbius courseware.
- Found and quickly fixed more than **10 showstopper bugs** near release while multitasking testing and development tasks.
- Took initiative to create **Docker** scripts to speed up the development and testing workflow.
- Automated time consuming tests using **Cypress** while improving website accessibility to raise the WCAG compliance level.

WatLock - Student Design Team

UI DEVELOPER/DESIGNER

Waterloo, Ontario, Canada

September 2019 - December 2019

- Building a Martian airlock with more than 100 members to compete in the UBC Mars Airlock Challenge.
- Lead proposal to include the utilization of **Electron** and **React** to build an intuitive UI for a Martian airlock.

Projects

Gyroll [↗](#)

A 3D UNITY MARBLE TILT MAZE GAME FEATURING A CUSTOM GYROSCOPE ON AN ARDUINO

October 2019 - November 2019

- Built an **Arduino** controller and integrated angular/tilt-based controls with **C#** and **Arduino** scripts.
- Implemented game object behaviours such as turrets, spike balls, and randomly generated spawn points within **C#**.
- Enforced principals of agile development to maximize productivity while working in a team.

Sagacity (Hack the North 2019 Finalist) [↗](#)

A WEB-APP MADE WITH **NODE.JS** & **PUG** WHICH ENHANCES NOTES WITH OCR AND NLP TECHNOLOGIES

September 13, 2019 - September 15, 2019

- Placed **within the top 12 out of 375 teams**, judged in terms of wow factor, technical difficulty, originality, and design.
- Generated relevant text around keywords to enhance notes by accessing NLP and OCR models within **MongoDB** via **Node.js**.
- Polished the front-end of the app with **Pug** to improve user experience.

JavaPaint [↗](#)

A FULL-FEATURED PAINT PROGRAM MADE FROM SCRATCH WITH **JAVA/SWING**

April 2019 - July 2019

- Built a fully-featured drawing application using the **Swing API**, featuring options to save, program defaults, modifiers, and more.
- Implemented undo/redo stacks, shapes, and toolbars with several data structures created from scratch.

Orgmodoro [↗](#)

AN **ANDROID** POMODORO APP THAT IMPROVES PRODUCTIVITY, MADE WITH **JAVA AND XML**

May 2019 - June 2019

- Designed schematics and built an intuitive UI with **XML** and **Android Studio**.
- Integrated multiple activities/windows to allow data transfer between background processes with **Java**.
- Utilized interactive push-notifications to indicate new states in the background, improving user experience.

Project Witchcraft [↗](#)

AN ARCADE-LIKE BULLET-HELL GAME MADE WITH **PYTHON/PYGAME**

May 2018 - June 2018

- Created a system that uses frame data/states to manipulates animations, fire rates, and beautiful bullet patterns.
- Implemented dynamic difficulty adjustments, high-score systems, and refined game controls for better user experience.

Education

University of Waterloo

SOFTWARE ENGINEERING

Waterloo, Ontario, Canada

2019 - 2024 (Expected)

- Candidate for BSE with President's Entrance Scholarship.