


Harry Zhang

Software Developer

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EXPERIENCE

IBM Canada

Core Software Developer, Toronto, Ontario 05/2019 - 08/2019

- Maintained and updated IBM's Risk and Compliance Management website, using **JavaScript (ES9)**, **Sass**, **React**, **MobX**, and **Java**
- Used **D3.js** and created a tree-generation algorithm to display a new hierarchical data type in order to improve usability for nested lists
- Modified backend XLSX generation code to add hierarchy support
- Conducted code reviews with other developers and collaborated with QA and design teams bringing several features and over **50+ bug fixes**
- Worked in an **Agile** environment, participated in daily **scrums**, weekly demos, and always finished tasks ahead of the assigned deadline

WorldSkills Team Canada

Competitor, Toronto, Ontario and Kazan, Russia 05/2018 - 08/2019

- Participated on the **Canadian National Team** at the 45th WorldSkills Competition for **Web Technologies** in Kazan, Russia
- Used WordPress, **CSS**, **JavaScript**, **Laravel**, **PHP**, **SQL**, and **React** to create websites that follow rules and specifications outlined by a client
- Trained with industry professionals, learned website content strategies, system architecture planning, UI/UX design and usage of modern development environments (Photoshop, **VS Code**, **Linux**, **SSH**)

PROJECTS

Unbounded

Project Lead and Gameplay Programmer 09/2019

- Built a '**non-euclidean**' VR proof of concept using **Unity3D**, and **C#**
- Developed a method to unrestrict the player's virtual world from the limits of the physical world allowing for an **infinite gameplay area** in the same physical playspace without breaking immersion in virtual reality

Continuum

Game Designer and Programmer 09/2018

- Built a 2D puzzle game set in 3D space using **Unity3D** and **C#** by rendering only a cross-section of the 3D world (using near/far clipping planes and shaders) and restricting player movement in 2D only

LaFi

Hardware Engineer 04/2017

- Created a data transmission device with **C++** and a pair of **Raspberry Pis** that rapidly blink lasers to transfer binary data over the air

IdeaShare

Frontend Developer and Server Administrator 09/2016

- Made an online platform for idea sharing with **Java**, **Bootstrap**, **JavaScript**, **AJAX**, and TextRazor NLP API
- Maintained **Docker** containers with Compose Orchestration and configured Nginx and MariaDB servers

SKILLS

JavaScript, HTML/CSS, React, PHP, Laravel, MySQL/MariaDB

Java, C/C++

Bash, Git, Docker, Linux, Unity3D

DESIGN TEAMS

Waterloop

Software Team Co-Lead

09/2018 - Present

- Collaborated with other leaders to design hyperloop internal pod infrastructure
- Used object-oriented **C++** to implement communications and logging system
- Created **Docker** images for GitLab **CI/CD**

TobyX

Full Stack Developer

09/2018 - 04/2019

- Created a Facebook Messenger bot using ManyChat Dynamic API, **AWS Lambda** and object-oriented **JavaScript/Node.js**

AWARDS

Hackathons

Hack the North 2019 Winner

Hack the North 2018 Winner

MasseyHacks III Gold Medalist

Hack the North 2016 Winner

Skills Competitions (Web Technologies)

WorldSkills 2019 Participant

Skills Canada 2018/2017 Gold Medalist

Skills Ontario 2018/2017 Top Ranking

Competitor in Technology Sector

EDUCATION

Candidate for BAsC Computer Engineering

University of Waterloo 09/2018 - 06/2023

Scholarships

- Colonel Hugh Heasley Scholarship (\$10k)

Relevant Courses

- Data Structures and Algorithms
- Fundamentals of Programming
- Digital Circuits and Systems