Harry Zhang
Software Developer

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Skills

Languages
Javascript, C++, Java, PHP

Tehnologies
Node.js, React.js, HTML/CSS, AJAX
MySQL, Linux, Git, Docker, Unity3D

Volunteering

Gift Card Bank
https://www.giftcardbank.org/
- Lead team of 5 backend developers
- Created **backend API** using Node.js, MongoDB, and deployed with GitLab CI/CD to AWS Elastic Beanstalk

SheHacks Mentor
https://shehacks.ca/
- Assisted over **25 hackers** at Canada's largest 24 hr all-female hackathon
- Helped groups troubleshoot problems with **Google Cloud API**, Ubisoft Hackers Nest API, UiPath API, **Python**, **Javascript**, and **Java**

Awards

Ubisoft Next 2020 Finalist
WorldSkills 2019 Compeititor
Skills Canada 2018 Gold Medalist
Skills Canada 2017 Gold Medalist

Hackathons
TreeHacks 2020 Gold Medalist
Hack the North 2019 Winner
Hack the North 2018 Winner
MasseyHacks III Gold Medalist
Hack the North 2016 Winner

Education

University of Waterloo
Computer Engineering, BASc Candidate
09/2018 - 06/2023
- Colonel Hugh Heasley Scholarship ($10k) awarded to 4 students yearly

Experience

Windows Core Software Developer | AMD
January - April 2020
- Worked on the Kernel Mode Driver (KMD) team to deliver bug fixes, updates, and features to the AMD Unified Graphics driver
- Interfaced with **Microsoft Display Driver Interface** (DDI) and the AMD Display Layer Abstraction (DAL) interface in **C++**
- **Optimized stack usage** in specific scenarios **by 40-60%**,
- Fixed bugs affecting the Radeon Overlay and Display Output Post-Processing

Software Developer | IBM
May - August 2019
- Maintained and updated IBM's Risk and Compliance Management website, OpenPages, using **JavaScript**, **Sass**, **React.js**, **MobX**, and **Java**
- Independently developed a **new React component** end-to-end
- Conducted code reviews with other developers and collaborated with QA and design teams bringing several other features and over **50+ bug fixes**

Web Technologies Competitor | WorldSkills International
May 2018 - August 2019
- **Represented Team Canada** at the 45th International WorldSkills Competition
- Competed against 32 of the world's best web developers
- Used a mobile-first approach to mock up 3 websites in Photoshop and **CSS**
- Created 2 **REST API** backends (in **PHP** and **Laravel**), 2 games (in **JavaScript**), and 2 full-stack websites (using Nginx, **MySQL**, JavaScript and PHP)

Projects

Neutral | Carbon Footprint Extension
https://shopneutral.io/
- Created a cross-browser extension that allows consumers to better understand carbon emissions of their online purchases and ways to offset it
- **Won the Moonshot (1st Place) Prize at TreeHacks 2020**
- **Awarded $12.5k as a part of Mozilla's Fix-The-Internet Incubator**
- Sole developer for backend API, powered by Strapi CMS (**Node.js**) and co-developer of extension created using **Javascript** and **WebExtensions API**
- Set up requied services with a Digital Ocean Server and DNS routing, along with **Docker** containers for MySQL, Nginx, and LetsEncrypt for SSL

Unbounded | Virtual Reality Game
- **Won at Hack the North 2019 (Top 12 Winners)**
- Built a **'non-euclidean' virtual reality** (Oculus Rift) game using **Unity3D and C#**, unrestricting the player's virtual world from the limits of the physical world

Listen Up | Personal Assistant
- Created an **Machine Learning** app, with Node.js and React.js to help individuals and businesses extract information from conversations in realtime
- Powered by **GCP's Natural Language API** and **Azure's Text Analytics SDK**

Orbit | C++ Game
- Developed a two-player shooter game in a full **n-body newtonian physics simulation**, made in **Visual Studio** using the **Ubisoft Next Competition API**
- Applied **OOP Design Patterns** such as Singleton, Strategy, and Observer