Zhiyuan (Ludeus) Wang

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Technical Skills

Languages: Next.js, C++(LLVM), Python, Java(Springboot), PHP(Laravel), and C#
Tools: Linux, Git, MySQL, Docker, Unity, AWS, VScode, Jenkins, BitBucket, Confluence, and Jira

Relevant Coursework

- Machine Learning
- Cryptography
- Database Management
- Operating System
- Numerical Computation
- Object Oriented Programming

Work Experience

Software Engineer | **Huawei Technologies Co.** **Markham, ON** | **May – Now 2023**

Technologies: C++(LLVM), Python, Docker, Git, VM

- Optimizing **LLVM** source code aiming at improving SLP vectorization and performing instructions building and transformations in **Linux** remote server.
- Updating **Python** scripts to integrate new benchmarks into existing workflows.

Web Developer | **Horizn Studios** **Toronto, ON** | **Sep – Dec 2022**

Technologies: PHP(Laravel), MySQL, React, Git, AWS S3, MAMP, Jenkins

- Improved existing methods using **Laravel** to perform CRUD operations on databases and modify website content easier and faster.
- Conducted local server tests using **MAMP** and utilized **Jenkins** for testing on development sites,
- Generated **MySQL** views and procedures to streamline testing and improve functionality of projects

Selected Projects

eLibrary simulator | *Next.js, SpringBoot, MyBatis, MySQL, Git*

- Developed a library website simulator using **Next.js**, **Springboot** and **MySQL** as an innovative team project
- Created backend API using **Spring MVC** and fetched data from backend using **Axios**.
- Collaborated with the team to analyze the database schema and website functionality to identify key areas for **index** optimization.

Rogue-like game | *C++, OOP, Design Pattern, Git*

- Designed and developed a **C++** game with object-oriented programming. Created a dynamic gameplay environment where players can choose their race with unique powers and explore dungeons to find treasure.
- Implemented **Decorator** design pattern to enhance player abilities using different potions
- Implemented **A* searching Algorithm** on Monsters Move method such that all monsters will chase player using the shortest path.

2D Side-scroller game | *Unity, C#*

- Designed character movements, attacks, and jumping in a Unity game using a combination of Animation and **UnityEngine**
- Fixed game bugs by analyzing **C#** code and conducting extensive testing with varied parameters, ensuring optimal performance and user experience.

Education

University of Waterloo **Sep 2020 – Aug 2025**

*3rd Year Bachelor of Mathematics, Major in **Data Science** (Co-op)* *Waterloo, ON*

- Cumulative Math and CS courses **GPA: 90%**
- **Excellent academic performance for 5 study terms**