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.
- Generated **MySQL** views and procedures to streamline testing and improve functionality of projects
- Conducted local server tests using **MAMP** and utilized **Jenkins** for testing on development sites,

Selected Projects

Knight-Maze 2D Game | *Unity, C#* | ⏺ *Github* | 🌐 *Blog*

- Developed 2D Unity side-scroller Game using **C#** and **UnityEngine**, exploring topics such as AI navigation, procedural animation
- **Most Challenging Feature:** Implemented various components (prefab) such as boomerang, one-way platform and hide spike

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

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

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
- **Most Challenging Feature:** Implemented **A* searching Algorithm** on Monsters Move method such that all monsters will chase player using the shortest path.

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 6 study terms**