

Henry Zhangxiao

COMPUTER SCIENCE · HONOURS, GAME DEVELOPMENT STREAM · CARLETON UNIVERSITY

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Skills

Languages Technologies

Python, Java, C, C++, Makefile, Shell, JavaScript, TypeScript, HTML/CSS
Linux/CentOS, Git, OpenShift, Kubernetes, Jenkins, Private Cloud, React, Docker, Podman, OpenGL, CMake, GDB, GCC

Projects

Quests of the Round Table

Carleton University

<https://github.com/HenryZhangxiao/quests-of-the-round-table>

Apr 2022

- A multiplayer card game coded in **Java** with the use of **Java Networking** and **JavaFX**
- Developed using the **Gang of Four** design patterns for regulation of **code maintenance**, **code abstraction**, and **object interaction**
- Used **Apache Maven** and **Git** to ensure version control while working in an **agile** and **model-driven environment**

Yume

Carleton University

<https://github.com/HenryZhangxiao/yume>

Apr 2022

- A **2D real-time** game written in **C++** using **OpenGL**, **OpenAL**, **SOIL**, **ALUT**, **GLEW**, **GLFW**, and the **GLM** libraries
- **Physical**, **parametric**, and **hierarchical movement** all handled through **matrix transformations**
- Graphics are drawn using **vertex shaders** and **fragment shaders** using **GLSL**

Music Center Simulator

Carleton University

<https://github.com/HenryZhangxiao/tuneshare>

Mar 2021

- Created a music center simulator using **C** while using **structs**, **pointers** and **dynamic memory allocation**
- Users are able to connect, update, and display their stats using **pointer arrays** and **double pointers**

Experience

IBM

Markham, ON

SYSTEM EVALUATION AND RELIABILITY TEST (SERT)

May 2022 - Present

- Deployed and regression tested CD and LTSR release candidate builds using automated **Jenkins CI/CD pipelines** and **hybrid cloud Fyre clusters**
- Created multiple Jenkins pipelines to test release candidate builds by modifying our deployment **Makefiles** and **Bash scripts**
- Monitored CI/CD triggered Jenkins jobs of release candidate builds to ensure the Checkout, OCP deployment, Common Services installation, Crossplane deployment, Zen installation, Upgrade, and Regression Testing stages were successful
- Testing suite covers regression, reliability, automation, upgrade, integration, compatibility, and longevity testing

IBM

Austin, TX

CLOUD PAK CONFIGURATOR • IBM USER EXPERIENCE DESIGN TEAM - CROSS PAK CONSISTENCY • RED HAT

July 2022 - Sep 2022

- Led development of a Dynamic Plugins pilot project using OpenShift Container Platform 4.11
- Created a mockup of the UI using design prototypes from Figma and InVision
- Developed using **TypeScript**, **Patternfly**, and **Podman**
- Deployed locally using OKD and online using Fyre clusters
- Built and pushed to Quay.io image registry using **Docker**

Education

Carleton University

Ottawa, Canada

B.C.S. COMPUTER SCIENCE HONOURS: GAME DEVELOPMENT CONCENTRATION

Sep 2019 - Present

Relevant Courses: Introduction to Systems Programming, Abstract Data Types and Algorithms, Introduction to Software Engineering, Operating Systems, Database Management Systems, Design and Analysis of Algorithms, Fundamentals of Web Applications, Object-Oriented Software Engineering, Programming Paradigms, Real-Time Operating Systems

Awards

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|------|-------------------------|------------------|
| 2019 | Academic Silver Medal | Earl of March SS |
| 2019 | Ontario Scholar | Earl of March SS |
| 2019 | Honour Society Award | Earl of March SS |
| 2019 | Art Certificate Program | Earl of March SS |

Availability

Available beginning Sep 2023