Richard Hua

richard.hua@uwaterloo.ca | 416-886-6812 | https://www.linkedin.com/in/huarichard0/

https://github.com/hua0-richard   https://rhua.netlify.app/

Education

University of Waterloo   Sep 2020 – Present
- **Major:** Honours Bachelor of Computer Science.
- **Coursework:** Algorithm Design and Data Abstraction, Functional Programs, Object Oriented Software Development, Data Structures and Data Management, Foundations of Sequential Programs (Compilers).

Employment

Marsh McLennan   Jan – Apr 2022, Aug - Dec 2022
Software Developer, Intern
- Developed internal Applications Portal web application used by 80 000 employees. Led implementation of web application support user interface and management.
- Developed internal Survey Tool web application, enabling re-use of business data. Led implementation of the user interface. Contributed to endpoint development.
- Authored components in the Angular shared user interface library, enabling rapid user interface development according to company design standards.
- Developed APIs using Node.js with frameworks Express.js or Nest.js. MongoDB as the database.
- Maintained CI/CD pipelines. Ensured robustness of DEV, SIT, and UAT environments. Implemented and maintained unit tests in Jest.
- Scrum Master for daily standup. Documented Sprints and Tickets in Jira.
- Leveraged knowledge: Git, Angular, Express.js, Nest.js, MongoDB, CI/CD, Docker

Huawei Technologies Canada   May – Aug 2021
Assistant Engineer, Intern
- Worked on the open-source data engine openLooKeng.
- Implemented automated testing scripts in Java. Implemented more rigorous testing methods of the Distributed Snapshot feature.
- Implemented a warning message for Query retries and Distributed Snapshot feature. Removed deprecated features and resolved several bugs.
- Reproduced and documented issues from Quality Assurance. Performed verification and validation testing and documented new issues.
- Leveraged knowledge: Git, Java, Bash CLI

Software Projects

Portfolio Website
- Responsive site with three main views designed for Desktop, Tablet, and Mobile.
- Utilized: HTML/CSS, JavaScript. Available at: https://rhua.netlify.app/

CC3K (Academic Project)
- Final group project for CS246. Based on a dungeon crawling game (rouge-like) with various Player and Enemy classes. Enemy and Player classes had special abilities, strengths, and weaknesses.
- Designed Unified Model Language diagram and implemented Visitor Design Pattern to handle Enemy and Player damage calculations. Used Polymorphism for Enemy and Player classes
- Decorator Design Pattern was used to provide "buffs" and "de-buffs" to player health and damage.
- Incorporated Smart pointers and encapsulation
- Utilized: UML, C++ (Visitor Pattern, Decorator Pattern, Polymorphism, Encapsulation, Smart Pointers)

Technical Skills

Skills: Angular, React, TypeScript, JavaScript, Node.js, Express.js, Nest.js, MongoDB, Python, C++, Git, Docker