Jackie Yuan Jun Xu

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3A Computer Science – University of Waterloo

Summary of Qualifications

- Strong background in Mathematics and software development regarding **Algorithms**, **Data Structures**, **Design Patterns** and **Object-Oriented programming** accumulated since high school.
- Familiar with various languages and technologies including **Java**, **C, C++**, **SQL**, **Web** and **Android**
- Industry working experience with **Unity** game engine, its associated language **C#**, as well as adequate knowledge in game design, optimization, editor scripting, and multiplayer game development.
- Two years of accumulated experience with **Python** through URA research work and personal projects

Experience

Mobile Development Intern • *Square Enix Montréal (Montréal, QC)*   (Sept – Dec 2018)

- Mobile developer for an unreleased, prototype project using predominantly **Unity**, **C#** and **GameSparks**
- Designed and Implemented **core** and **experimental** game features regarding gameplay and statistics
- Wrote a command line script that enables **automation** of deployments on multiple devices in parallel to eliminate the need for manual application installation
- Integrated and refactored major game components written by other programmers and performing optimizations that reduced memory allocation by **over 100 times** and fixed memory leaks
- Created **Unity** editor scripts and **C#** extensions that provided time-saving conveniences for others
- Formulated and implemented a post-game analytics system that provides a summary of player statistics and scores based off of their performance via a **custom ranking algorithm**

Game Programmer • *Behaviour Interactive (Montréal, QC)*   (Jan – Apr 2018)

- Front-end developer for the mobile game *Westworld* using **Unity** game engine, **C#** and **XML**
- Implemented new **modular** game components including scripts, assets, and prefabrications that are **reusable** and allow easy future expansions and modifications
- Optimized several inefficient game features including heavy memory allocation, reliance on update loops, and large data pulls using **asynchronous loading** and callback events
- Redesigned the way certain asset data is fetched for crucial game components by reading the data from an excel spreadsheet and removing the dependency on **over 100** scriptable object files
- Performed a complete code **refactor** on the game's Objectives system to **reduce 80%** of code clones
- Reported and fixed various game-breaking bugs and exploits related to **gameplay** and **UI**

Projects and Activities

RememberMeThis – *Android Educational App • (March 2018 – May 2018)*   [View]

- Independently created an educational **Android app** that implements the Spaced Repetition learning technique to help students remember terminology in the most efficient way
- Implemented custom features including animations and file I/O for handling persistent data

PicFive – *Web App • UofTHacks IV (Jan 2017)*   [View]

- Cooperatively developed an image-word processing web game using the Clarifi API, which provides **image and natural language processing** abilities to recognize content in photos
- Developed the web user interface from scratch using **HTML**, **CSS** and **JavaScript** frameworks

More at: onepunman.me/pages/projects.html