TREVIN WONG 4th Year, Computer Science Major

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TECHNICAL SKILLS

Languages: C++, Lua, Java, JavaScript, PostgreSQL, Python, PHP, C#, Objective-C
Tools: Unreal Engine 4, git, OpenGL, Love2D, Perforce, Visual Studio, Vim, Linux, Android Studio
Platforms: Windows, Linux, macOS, tvOS, iOS

WORK EXPERIENCE

Junior Software Engineer [C++, Unreal Engine 4] **April 2019 – Current**
Skybox Labs (Stela)

- Provided support for designers by providing custom engine features, such as the ability to randomly generate enemy positions and fixing level-specific bugs
- Worked heavily with artists, animators and sound engineers to implement art, animations, and sound
- Implemented support for unlocking and viewing Game Center achievements for tvOS, iOS and macOS by creating a custom UE4 plugin
- Handled gameplay and animation bugs related to low framerates, input spamming, crashing, and missing Xbox accessibility controller support
- Became comfortable working under high-stress situations shipping the game; fixed multiple critical bugs on Apple platforms within 2 day time-frame
- Collaborated with other engineers using Perforce, and reviewing each other's code in-person

Junior Developer [Android, Node.js, PostgreSQL] **April 2018 – December 2018**
Calico Logic

- Worked with technical support to test and patch multiple Android, Node.js and SQL bugs
- Reduced memory usage in Android app by caching large PDFs and using server-side pagination
- Collaborated with other engineers using git, Trello and GitLab to review merge requests

PROJECTS

Space Pearates [C++, OpenGL] (https://github.com/terbb/Space-Pearates)

- Platformer/tower-defense game made using an engine coded from scratch in an ECS-style architecture, with ability to hot-load data and render sprites using OpenGL programs and shaders
- Led a team of 6, responsible for overseeing all game design and engineering decisions, conducting meetings and presenting progress every week to a class
- Used C++ concepts such as unique and shared pointers, move semantics and templates
- Coded combat and movement systems, such as mesh collision using a pre-processed grid, player physics, and an enemy director

Paper Cut [Lua, Love2D, Android] (https://github.com/terbb/Paper-Cut)

- Dimension-estimation game currently published on Play Store with ~1k downloads
- Worked in a team of 3 to build a prototype in 48 hours, winning 1st place at BC Game Jam 2017
- Re-architected entire game using OOP, with Observer, Factory and Composite design patterns
- Optimized speed of scoring algorithm by combining line segments in a given shape, and reducing search radius to bounding box of shape
- Implemented locally saved in-game cash, shop, gameplay modifiers, high-scores, and achievements

cpp-practice [C++] (https://github.com/terbb/cpp-practice)

- Over 12 unique data structures and variations, plus 6 sorting algorithms, coded from scratch in C++
- Detailed spreadsheet of my solutions to over 100 Leetcode problems, written using C++

BYTEPATH Mini [Lua, Love2D, Android] (https://github.com/terbb/bytepath-with-exercises)

- Android-port of an Asteroids/PoE game-tutorial, coded mobile-friendly menus and controls
- Over 220 exercises adapted to LOVE 11.0, including implementing a skill tree and all attacks/passives