

TREVIN WONG

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4th Year, Computer Science Major

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TECHNICAL SKILLS

Languages: C++, Lua, Java, JavaScript, PostgreSQL, Python, PHP

Tools: OpenGL, Three.js, Android Studio, Love2D, Ionic Framework, Node.js, Vim, git, Jekyll, Linux, Heroku

PROJECTS

Pong [C++, OpenGL] (<https://github.com/terbb/Pong>)

- Used tutorials from LearnOpenGL to build engine with custom classes to render sprites and text, compile and use shaders, and load and apply textures
- Implemented basic gameplay: circle-rectangle collision detection, ball bouncing and player movement

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

- Built prototype in 48 hours with a team of 3, winning 1st place at BC Game Jam 2017
- Re-architected entire game using OOP, with design patterns like Observer, Factory and Composite
- Implemented features like high-scores, in-game cash, shop, item modifiers, and achievements, all of which are saved on the user's device
- Optimized speed of scoring algorithm by combining line segments in a given shape and reducing search radius to shape size
- Scaled the game to all resolutions and used Android SDK to publish on Play Store

WargamersApp [Ionic, Node.js, PostgreSQL] (<https://github.com/terbb/WargamersApp>)

- Created an image compression endpoint which uses Google Cloud to store compressed images
- Re-worked front-end to use models and providers to easily store and retrieve data for executives, events, and games
- Implemented server-side pagination and caching to cut down memory usage

Sleight of Hands [Three.js, Leap Motion] (<https://github.com/terbb/nwhacks2018>)

- Set-up scene using WebGL renderer, camera and spotlight
- Architected game by setting-up life system, timer, and mini-game loader, plus a door closing animation

WORK EXPERIENCE

Junior Developer

April 2018 - December 2018

Calico Logic

- Reduced memory usage in Android app by caching forms and PDFs, using Firebase to send notifications instead of frequent API calls and server-side pagination
- Implemented features like form scanning using OpenCV and ability to search for safety sites
- Tested and patched Android, Node.js and SQL bugs
- Used LeakCanary to detect and fix memory leaks
- Resolved merge conflicts and reviewed merge requests using git, Trello and GitLab

Instructional Tech Support

April 2017 - December 2017

UBC Arts ISIT

- Provided staff and faculty with tech support and workshop demonstrations for 15+ instructional tools
- Migrated over 800 post-secondary courses to a new learning management system