Felix Guo

(+1) 226-600-9117 » felix.guo@uwaterloo.ca
felixguo.me « github.com/fg123

SKILLS ›

Programming	C, C++, Python	**Web**	HTML5, CSS, Javascript, PHP, MySQL
Game Design	Unity, SFML, UE4	**Android**	Java, Kotlin
Team Based	Detail-Oriented, Self-Motivated, Fast-Learning, Innovative		

EXPERIENCE ›

Google LLC.   **Sunnyvale, CA**
Software Engineering Intern   May. 2018 - Aug. 2018
- Helped develop and launch KUnit, a unit-testing framework for the Linux Kernel
- Built user-facing scripts in Python to interact with the KUnit to run and manage unit tests
- Implemented mock types, in-sequence expectation matching and other minor unit testing features in C

Yahoo! Inc.   **Sunnyvale, CA**
Software Developer Intern   Jan. 2018 - Apr. 2018
- Developed multiple features in Kotlin for Fantasy Sports Android such as Start Active Players for the week
- Planned and implemented complex UI flows on Android such as the native ability to Create a Daily Contest

Yahoo! Inc.   **Sunnyvale, CA**
Software Developer Intern   May. 2017 - Aug. 2017
- Created new Android "Accordion" ad layout for Growth and Monetization team with a custom view folding effect developed with Java to industry standards, raising click-through rates from 0.13% to 0.23%
- Developed Draft Chat and Draft Order pages up to spec, as part of Yahoo Fantasy Sports's live draft system

Inkpad Studios (Mobile Gaming Startup)   **Vancouver, BC**
Game Developer   Nov. 2014 - Jun. 2016
- Sole developer of Pedal Panic, a top-down tilt-controlled cycling game, working with Unity, Java and C#
- Implemented all parts of the game structure, including an audio manager for Unity, a randomized terrain generator, parallax scrolling for the background, and 3 different ad mediators for both interstitial and rewarded ads on Android

PROJECTS ›

WendyScript
Fully Featured Programming Language – wendy.felixguo.me   Nov. 2016 - Present
- Compiler written fully in C, supports dynamic typing, first class functions with closures and meta-objects, including a lexer/parser, code-generator, and a bytecode VM
- Developed recursive descent parser to parse custom grammar into an abstract syntax tree as well as a VM to run custom compiled binaries

Lumen Astrum
Turn-based Top-down RTS Game – github.com/fg123/lumen-astrum-js   June 2013 - Present
- Lumen Astrum is a 1v1 game where players build structures and units to eventually destroy the enemy's command base, with tiered units requiring different support structures, a robust resource system, and a component of vision control
- Built event based, deterministic game model based on state change events in Javascript to ensure syncing and verification between server and clients
- Created UI and frontend engine for the game running on vanilla HTML5 canvas, including animation handling
- Developed core features like game state management, and hexagon tile pathfinding algorithms from scratch

Tetris with Friends
Online Multiplayer Tetris Game – tetris.felixguo.me   May. 2018 - Aug. 2018
- Remake of the Facebook game, Tetris Friends with a Javascript Tetris engine, Socket.io server, and HTML5 canvas client
- Includes features like sending lines to other players in the same lobby and spectating players in a lobby

EDUCATION ›

University of Waterloo and Wilfrid Laurier University   2016 - 2021 (Expected)
Candidate for Bachelors of Computer Science and Business Administration