JONATHAN DEIVEN

647-969-7442
jdeivend@uwaterloo.ca
jonathandeiven.com
jonathandeiven

SKILLS

Proficient Languages: C++, Java
Familiar Languages: C, JavaScript, Python, SQL, Shell Scripting
Web Development: HTML5, CSS3, jQuery
Data Analysis: Microsoft Excel, MATLAB
Platforms and Tools: Linux, Android, Eclipse, Git, SVN
Graphic Design: Adobe Photoshop and Illustrator

WORK EXPERIENCE

Systems Software Developer - BlackBerry, Ottawa ON *Sept 2015 – Dec 2015*

- Developed a kernel driver to send diagnostic events from the Android kernel space to the event logging server using C
- Rewrote device diagnostics kernel API to accept and process logging commands with parameters
- Created an automated testing framework for BlackBerry diagnostics using Java and UI Automator, which has been adopted by other developers to reduce test creation time by up to 90%
- Analyzed Java codebase using Klocwork to identify and fix critical bugs ahead of BlackBerry PRIV launch

Java Developer - TD Securities, Toronto ON *Dec 2014 – May 2015*

- Developed a Java application to automate contract booking and repaying, ultimately cutting processing time on the trading desk by 93%
- Redesigned the login design and workflow using Java Swing API to improve the end user experience
- Implemented a cryptographically secure password reset system
- Automated processing of security availability feeds using SQL and SSIS

PROJECTS

Game Boy Emulator (Present) • github.com/jonathandeiven/Gameboy-Emulator

- Currently working on building an emulator for the Nintendo Game Boy, including its Zilog Z80-like CPU, in C++

Bit for Android (2016) • play.google.com/store/apps/details?id=com.jonathandeiven.bit

- Published a puzzle game where a user plays with binary numbers and bitwise operators on Google Play Store

CHIP-8 Emulator (2015) • github.com/jonathandeiven/CHIP8-Emulator

- Implemented a CHIP-8 CPU interpreter using C++ and the SDL library for graphics, capable of running 8-bit ROM files like Space Invaders

Cautio (2015) • jonathandeiven.com/blog/cautio

- Developed an "Internet of Things" embedded system for police gun accountability using an accelerometer, gyroscope, luminosity sensor, cloud storage and Raspberry Pi

TypeTest (2015) • jonathandeiven.com/typetest

- Developed a web application that computes user's typing speed using JavaScript

Flood Tile Game (2014) • github.com/jonathandeiven/Flood

- Created a tile matching game using C++ and XWindow graphics

EDUCATION

University of Waterloo, Waterloo ON *Sept 2012 – Apr 2017 (Expected)*

- Candidate for BASc degree in Systems Design Engineering, Honours
- Relevant Courseware: Object-Oriented Software Development (CS 246), Algorithms (CS 341)