

# JONATHAN DEIVEN

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🏠 [jonathandeiven.com](http://jonathandeiven.com)  
🐙 [github.com/jonathandeiven](https://github.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

## WORK EXPERIENCE

**Software Engineer (Intern) - Google, Nest Labs, Palo Alto CA**

*Apr 2016 – Present*

- RF Design and Factory Engineering

**Systems Software Developer (Intern) - BlackBerry, Ottawa ON**

*Sept 2015 – Dec 2015*

- Developed a kernel driver to send diagnostics 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%

**Java Developer (Intern) - 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

**Supply Chain Analyst (Intern) - George Weston Limited, Toronto ON**

*Oct 2013 – Jan 2014*

- Developed the company's automated National Obsolescence Report to detail current and forecasted financial impact of expired goods, saving seven hours of manual work biweekly

**QA Analyst (Intern) - NexJ Systems, Toronto ON**

*Jan 2013 – Apr 2013*

- Extensively tested CRM software on web and mobile, logging over 40 undiscovered bugs

## EDUCATION

**University of Waterloo, Waterloo ON**

*Sept 2012 – Apr 2017*

- Candidate for BAsC degree in Systems Design Engineering, Honours
- Relevant Courseware: Object-Oriented Software Development, Algorithms

## PROJECTS

**Muto** (2016) • [jonathandeiven.com/blog/muto](http://jonathandeiven.com/blog/muto)

- Created a USB HID-compliant modular game controller where the physical control layout is selected by the user to control computer games developed for Windows and Mac
- Developed a driver and PCB design to detect controller component placement, route the information and serialize the data using C, Arduino and EagleCAD

**CHIP-8 Emulator** (2015) • [github.com/jonathandeiven/CHIP8-Emulator](https://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](http://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