

# Joey Pereira

## software developer

### contact

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joeypereira.com  
github.com/xlegoz

### languages

Actionscript  
Racket  
HaXe  
Java  
PHP  
C

### working knowledge:

Javascript  
Python  
Erlang  
Bash

### tools

MySQL  
L<sup>A</sup>T<sub>E</sub>X  
Git

### reverse engineering

Java Bytecode Editor  
Java Decompiler  
.NET Reflector  
Ollydbg

### interests

distributed systems  
reverse engineering  
operating systems  
machine learning  
formal languages  
compilers and  
assemblers  
  
innovating & inventing  
theoretical physics  
fishing and sailing  
entrepreneurship  
new tech

### about me

I'm currently an undergraduate Computer Science student at the University of Waterloo. I have a passion for theoretical computer science, software development, and the innovation along with creation of new ideas.

### qualifications

avid leader      experienced with small teams      adaptable to any environment  
enjoys challenging problems      passion for learning      loves computer science

### education

- 2013-2018      **Bachelor's of Computer Science, University of Waterloo**      Waterloo, Canada  
Projected minor in management studies based on interests of entrepreneurship  
First year representative on Math Endowment Fund Funding Council  
Highly involved in campus volunteering, events, and collaboration groups  
Cumulative average of 85%
- 07-09 2013      **Startup Engineering Course**      Stanford - Coursera (Online)  
Learned about what it takes to develop an idea from a business perspective  
Discovered effective methods of development behind innovative work
- 01-02 2014      **Web Development Course**      Udacity (Online)  
Built applications on Google App Engine, using Python  
Learned the internet's structure and various techniques for handling web data
- 01-02 2014      **Ontario Secondary School Diploma**      Centre Wellington District High School  
Highly involved in the school community, having led several clubs educating fellow peers with knowledge outside of curriculum, and creating initiatives to learn in a way often compliments course activities

### experience

- 06-08 2013      **Framing Carpenter**      Katerberg Framing  
Involved in small *team collaboration* to achieve *tight deadlines*  
Worked with various tools of the trade to *optimally complete tasks*
- 2011-2012      **Co-founder and Head Technician**      J&J Tech  
Investigated starting a *small business* with a partner  
Gained *management skills* through advertising and customer handling  
Underwent management and organizational *responsibilities*
- 06-08 2011      **Service Assistant**      PlanetCPU  
Diagnosed software and hardware problems under *tight time constraints*  
Worked as a *team to complete tasks* as well as run a *market campaign*  
Learned how to be a *key contributor* to a small team and to the business

### Volunteering

- 11 2013      **Recruitment Ambassador**      David Cheriton School of Computer Science, uWaterloo  
Volunteered in University of Waterloo Fall events for prospective students  
Set up *technical systems* and miscellaneous equipment for the event  
Help prospective students in *discovering computer science* as a passion
- 2012-2013      **Technical Organizer**      Elora Road Christian Fellowship  
Solved various *technical problems under pressure* to maintain event quality  
*Facilitated* a small worship team and the operation of equipment

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## projects

- |           |   |                        |
|-----------|---|------------------------|
| 2014      | <b>Pi Net</b> - Raspberry Pi Mesh Based Network   | Still in development   |
|           | Created to discover the interaction of multiple devices over a peer to peer network and the sustainability of the mesh network containing intranet throughout the network.  |                        |
| 2013-2014 | <b>JoOS</b> - Bare Bones Operating System - <i>ASM, C</i>   | github.com/xlegoz/JoOS |
|           | Goal of learning more about the operating system layer and theory<br>Involved assembly, interrupt handling, and knowledge of operation at a low level   |                        |
| 2013-2014 | <b>Coldeas</b> - Collaborative Classroom Space - <i>Java</i>  | Still in research      |
|           | Involved finding solutions to problems such as:<br>Designing a server structure to handle state updates and conflict management<br>Utilizing data structures requiring delta compression and spatial representation   |                        |
| 2013      | <b>jjNES</b> - Nintendo Entertainment System Emulator - <i>Java</i>   | Still in research      |
|           | Aimed to achieve a better understanding of computer architecture<br>Observed models of how components interact within the NES architecture<br>Involved an understanding of machine code and processor operations  |                        |
| 2013      | <b>Mobile Door Locking</b> - Multi-platform door locker - <i>Arduino, Java</i>  | Still in invention     |
|           | Remotely use a system of authentication to lock a deadbolt<br>Built using the Arduino platform, utilizing various communication streams including web sockets, email and sms protocols<br>Worked with important security issues such as short-life authentication |                        |

## achievements

- |         |   |  |
|---------|---|--|
| 09 2013 | <b>Google Ship Wars Hackathon</b> <i>Top 10</i>   | Google, Waterloo                       |
|         | Developed an AI which challenged fellow competitors<br>Completed objectives with new tools and under a heavy time constraint  |  |
| 02 2013 | <b>Educational Computing Organization of Ontario Programming Contest</b> <i>Semi-finalist</i>   |  |
|         | University of Western Ontario<br>Directed a team in a highly team-oriented problem solving environment<br>Utilized critical thinking to translate solutions to code |  |
| 04 2013 | <b>Canadian Computing Contest Certificate of Distinction</b> <i>Top 100</i>   | University of Waterloo                 |
|         | Demonstrated key solving ability by creating efficient algorithms to problems   |  |
| 06 2013 | <b>Mathematical Merit Award</b>   | Centre Wellington District High School |
| 06 2013 | <b>Ontario Scholar Award</b>  | Centre Wellington District High School |

## relevant activities

### reverse engineering:

Driven from a passion to understand the workings of software and what drives a security focus in the development cycle, as well as to discover code structure post-compiling  
Acquainted with measures taken to secure confidential data and a program's integrity  
Knowledge of obfuscated code and various obfuscation techniques