

Joey Pereira

software developer

contact

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joeypereira.com
github.com/xlegoz

languages

Actionscript
Racket
HaXe
Java
PHP
C

working knowledge:

Javascript
Haskell
Python
Erlang
Bash

tools

MySQL
L^AT_EX
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

theoretical physics
fishing and sailing
entrepreneurship
new tech

about me

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

qualifications

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

education

- 2013-2018 **Bachelor's of Computer Science, University of Waterloo** Waterloo, Canada
Projected minor in combinatorics and optimization and management studies
based on interests of entrepreneurship and problem solving
Highly involved in campus volunteering, events and collaboration groups
Cumulative average of 84.2%, and taken advanced level computer science
- 07-09 2013 **Startup Engineering Course** Stanford - Coursera (Online)
Learned about what it takes to develop an idea from a business perspective
Discovered methods behind innovative work
- 01-02 2014 **Web Development Course** Udacity (Online)
Built applications on Google App Engine, using Python
Learned various techniques for handling web data and the internet's structure
- 01-02 2014 **Ontario Secondary School Diploma** Centre Wellington District High School
Highly involved having lead several clubs, educating fellow peers with knowledge outside of curriculum

experience

- 2011-2012 **J&J Tech** Co-founder and Head Technician
Investigated starting a *small business* with a partner
Management skills gained through advertising and customer handling
Underwent management and organizational *responsibilities*
- 06-08 2011 **PlanetCPU** Service Assistant (Co-op)
Diagnosed both software and hardware under *tight time constraints*
Worked as a *team to solve problems* as well as do a *market campaign*
Learned how to be a *key contributor* to a small team and to the business
- 06-08 2012 **Katerberg Framing** Framing Carpenter
Involved small *team collaboration* to achieve *tight deadlines*
Worked with various tools of the trade to *optimally complete tasks*
- 11 2013 **David Cheriton School of Computer Science Recruitment** Recruitment Volunteer
Volunteered in University of Waterloo Fall events for prospective students
Set up *technical systems* and miscellaneous equipment for the event
Assist prospective students in *discovering computer science* as a passion
- 2012-2013 **Elora Road Christian Fellowship** Technical Organizer
Solved various *problems under pressure* to maintain event quality
Facilitated sound and the operation of equipment for a small worship team

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projects

- 2013-2014 **JoOS** - Bare Bones Operating System - *ASM, C* github.com/xlegoz/JoOS
Created from a passion of learning more about the operating system layer
Involves assembly, the multiboot standard, and interrupt handling
Target goal of discovering more within operating system theory
- 2013 **jjNES** - Nintendo Entertainment System Emulator - *Java* Still in research
Aimed to create a better understanding of computer architecture
Created models of how components interact within the system
Involved a strong understanding of machine code and memory models
- 2013-2014 **Coldeas** - Collaborative Classroom Space - *Java* Still in research
Discovering solutions to problems such as:
Designing a server structure to handle active updates and conflict management
Developing unique data structures undergoing delta compression, spatial transposition, and consisting of directed cyclic graphs
- 2013 **Mobile Door Locking** - Multi-platform door locker - *Arduino, Java* Still in invention
Planned a system of authentication to remotely lock a deadbolt
Established using the Arduino platform, utilizing various communication streams including web sockets, email and sms protocols
Designed a mechanical system to complement the electronic system
Worked with important security issues such as short-life authentication

achievements

- 09 2013 **Google Ship Wars Hackathon Top 10** Google, Waterloo
Developed an AI which challenged fellow competitors
Completed objectives with new tools and under a heavy time constraint
- 02 2013 **Educational Computing Organization of Ontario Programming Contest Semi-finalist**
University of Western Ontario
Directed a team in a highly team-oriented problem solving environment
Utilized critical thinking to translate solutions to code
- 04 2013 **Canadian Computing Contest Certificate of Distinction Top 100** University of Waterloo
Demonstrated key solving ability by creating efficient algorithms to problems
- 06 2013 **Mathematical Merit Award** Centre Wellington District High School
- 06 2013 **Ontario Scholar Award** 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 the post-compiled code's structure
Acquainted with measures taken to secure confidential data and a program's integrity
Knowledge of obfuscated code and various obfuscation techniques