## JAMIE A. MACDONALD

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## Objective

I am looking for **fast-paced** summer employment in the field of **Software Development**. I have a strong **math and programming background** from my studies and hobbies, and I am excited by clean, simple, **innovative** solutions to human problems.

### Education

2010–2014 BSc Mathematics & Engineering, Computing and Communication Queen's University, Kingston Ontario

### Programming

Python web development in Django, Flask; OOP; scripting; Abstract Syntax Tree parsing; Closures; Decorators; list comprehensions; Matplotlib, Scipy, Numpy; Sphinx; bash automation; scripting; C Makefiles; compiler flags; memory management; Java Generics, Interfaces, Polymorphism, swing; C++ OOP; Javascript Coffeescript; event handlers; HTML, CSS Liquid, Jinja templates; SCSS; Box model; Octave, Matlab; LaTeX

# **Projects**

Channel-Optimized Vector Quantization of Correlated Images for Transmission over a Wireless Channel (Fourth Year Project/Thesis)
Implement a Lossy Joint Source-Channel Code which exploits the Correlation in two random sources (images)
(Information Theory, C programming, Python matplotlib, LaTeX writeup)

Child Soldier Cycle
Biked 3000km from Ottawa to Newfoundland running an awareness campaign for child soldiering – collected over 1500 red handprints as a petition to the media to provide better coverage of global Child Soldiering issues

#### **Activities**

Open Source contributions: Openbox (C), Nitrogen (C++ GTK)

Clubs: Queen's Hack Nights Recreation: Rockclimbing, Biking

Blog: http://jameh.github.io (Jekyll, SCSS, Liquid, Markdown)