

jamie.alban@gmail.com
(613) 583-7654
2251 Fife Cres.
Ottawa, ON

November 18, 2014

candrei@developmentgateway.org
Catalin Andrei, Director of IT
Development Gateway

Hi, Catalin!

I have attached my résumé to the following page of this pdf. Please consider this an application for a software development position at Development Gateway.

I am about to graduate from the Mathematics and Engineering: Computer and Communication Systems from Queen's University, Kingston, Canada, and I am looking for fulltime employment in the coming new year.

I am a believer that simple, accessible information technology can help tip the scales of development work by empowering local populations with the tools to rule their future. I am furthermore impressed by the initiative from your organization in focussing on crowdsourcing and geocoding of aid information with AidData: it truly aims to empower donors and organizations to better serve people on the ground.

I am especially motivated by working toward positive social impact, I advocate Free Software, activism, and would direct my skills to these endeavors foremostly.

My mathematical background spans many applied fields (see attached résumé), and I strive to apply these technical skills in my software. In particular, my foundation in statistics aided my work in maintaining a visualization/charting engine for IBM last summer and my probability skills often help to formally assess the efficacy of algorithms and software solutions. My application interests include social networks, alternative crypto-currencies, human-computer interaction, distributed systems, data visualization.

I am proficient in Java, and more recently clientside and serverside Javascript.

I hope that you find me a good fit for your organization, and I look forward to talking to you further about this opportunity!

Sincerely,

Jamie Macdonald

JAMIE A. MACDONALD

jamie.alban@gmail.com

(613) 583-7654

2251 Fife Cres.

Ottawa, ON



Objective

I am looking for **fast-paced** fulltime 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 **elegant, innovative** solutions to **real** human problems.

Education

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

Programming

Git guru; **Python** web dev in Django, Flask; OOP; scripting; Abstract Syntax Tree parsing; Decorators; list comprehensions; Matplotlib, Scipy, Numpy; Sphinx; **Linux: bash, fish** scripting; **C** Makefiles, compiler flags, memory management; **Java** Generics, AWT, canvas; **C++**; **Javascript**; Coffeescript; Nodejs, Express, mongodb, D3, jQuery; module/namespacing patterns; **HTML**; Liquid, Jinja, Jade templates; **CSS**; SCSS, Stylus; Box model; **Octave, Matlab**; **LaTeX**; Algorithms, Data Structures

Mathematics

Probability, Stochastic processes; **Information Theory**, Data Compression, **Communication Theory**, **Coding Theory**, Algebraic Structures; **Control Theory**, Differential equations, Linear time-varying systems; **Signals**, **Linear Systems**, **Transform Theory**, Sampling, Linear Algebra

Projects

2013–2014 | **Channel-Optimized Vector Quantization of Correlated Images for Transmission over a Wireless Channel (Fourth Year Project/Thesis)**
Design & implement a Lossy Joint Source-Channel Code which exploits the Correlation in two random sources (images)
(Information Theory, Discrete Cosine Transform, C programming, Python matplotlib, LaTeX writeup)

2010 | **Child Soldier Cycle (Activism)**
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
Leadership, outreach, perseverance, organization

Work Experience

Summer 2014 | **Software Programmer – IBM Watson Visualization Engine**
Maintain charting/vis engine (Java); frontend JS demo app, evaluate API; D3js, jQuery; agile development; Java AWT, canvas; GeoJSON
Collaborate with an international team; build strong communication skills

Activities

Clubs: Queen's Hack Nights

Recreation: Yoga, Rockclimbing, Biking, Longboarding

Music: Keys, Trumpet, Voice