Kieran Colford

3B Computer Science, Honours, Co-operative Program, University of Waterloo, ID Number: 20580433

▬▬▬ Summary of Qualifications

- Excellent problem-solving skills demonstrated by education and self-initiated open source projects
- Commended by supervisors on a consistent basis for being a highly reliable and independent hard worker
- Gained extensive skills through personal experience in a number of programming languages and technologies.

  Programming Languages C/C++, Go, Java, Python, Javascript/NodeJS, x86 Assembly (AT&T syntax), Perl, Haskell, Bourne Shell, SQL and Racket

  Technologies Ethereum, TCP/IP, IPv6, UDP, SCTP, SSL/TLS, Three.js, Apache Web Server, Nginx, CGI, MySQL, PostgreSQL, CouchDB, Bind 9, Busybox, Kerberos, OpenLDAP, Samba, Wire Guard, OpenVPN, X.509, Let's Encrypt, GnuPG, IPFS, Libvirt, Docker, Containers, WebGL (OpenGL ES), HTML5, JSON, XML, AngularJS, JQuery, Ajax, and CSS3

  Documentation Org Mode, Doxygen, Markdown, ReStructuredText and LaTeX

  Libraries OpenMP, Qt, Gtk+, OpenGL, SQLite and Boost

  Build Systems Grunt, Gulp, Makefiles, CMake, and GNU Autotools

  Development Tools GIT, GDB, Jenkins, Unix Command Line, Linux, Arch Linux and Emacs

- Canadian Citizenship

▬▬▬ Work Experience

May.–Aug. 2016 and Jan.–Apr. 2017 **Fullstack Software Developer**, *BlueRover*, Kitchener, Ontario.
- Engineered a trend analytics engine that identifies potential hazards in food preparation thanks to data provided by the I.O.T. (Internet of Things) infrastructure.
- Maintained and expanded major product offerings using innovative tools and techniques.
- Independantly developed a multitude solutions for our existing product base in an agile environment.

Sept.–Dec. 2015 **Software Developer**, *Ontario Teacher's Pension Plan*, Toronto, Ontario.
- Received an outstanding work term evaluation from my employer.
- Reverse engineered the database for a third party product, and then developed an app for non-developers to view relevant content of the database.
- Designed and produced a backwards compatible service for sending email from enterprise applications.

Education

2014–present   **Candidate for Bachelor of Mathematics**, *University of Waterloo*, Waterloo, Ontario.

2014   **Ontario Secondary School Diploma**, *The Abelard School*.

Awards

2014   **Evgeny Kravchenko Memorial Scholarship**, *University of Waterloo*.

2014   **University of Waterloo President's Scholarship**, *University of Waterloo*.

2014   **AP Scholar with Distinction**, *The College Board*.
Awarded for receiving an average score of at least 3.5 on all AP Exams taken, and scores of 3 or higher on five or more of these exams.

2014   **The Alan Turing Award for Excellence in Computer Science**, *The Abelard School*.

2014   **Ontario Scholar Certificate**, *The Abelard School*.

Projects

2017   **Dynamic DNS**.
Designed and developed software to dynamically update DNS records for nodes without static IP addresses for reducing costs and improving usability of mobile workstations.

2016   **Linux Firmware Support**.
Developed firmware for supporting the Atmel MaxTouch Touchscreen in the Lenovo Thinkpad Yoga 11e Chromebook (and other devices such as the Google Pixel 2) on vanilla Linux kernels.

2016   **Personal Enterprise Infrastructure**.
Networked together all personal computing platforms, from Chromebook to cloud virtual machines and containers to desktop, in an enterprise grade infrastructure based on Arch Linux.

2016   **Port of GCC to Course Specific Architecture**.
Ported the GCC to a varient of MIPS specific to the CS 241 course in which students write their own compiler. *(could not publish)*

2015   **UWaterloo AddCourse**.
A Python App that eases the task of getting into courses after the course selection date.

2014   **Boilerplate Generator**.
Developed an easy to use boilerplate generator that analyzes comments in source code and generates code based on those comments.

2014   **Mongoose**.
A fully fledged compiler for a Turing Complete subset of the C language.

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 kcolford
StackOverflow: randomusername (almost 6,000 reputation)   *2/2*