Damien Robichaud

Objective — Looking for a challenging and engaging internship with an industry leader.

Co-op Status

Will have completed four of nine study terms in April 2017.

Available for second Co-op term in May 2017.

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Education

2015 — Present   **Bachelor of Computer Science**
Computer Science
University of Dalhousie

Technical Skills

Git — Actively version control projects at work, school, and on my free time.

C — Used to make various projects, such as real time audio playback a simple kernel and freestanding projects. Good understanding of how to work with pthreads and basic understanding of how to use C11 threads.

ASM — Comfortable writing low level code such as x86($_$64) assembly programming.

Gdb — Experienced and comfortable with the Gnu debugger for C and assembler.

Java — Used for various school assignments and during my work term at Lockheed Martin.

TEX — Used to make all academic writing assignments.

Ruby — Used to make small web server applications with Postgresql.

Go — Used for lightweight text parsing applications, and web servers.

Unix — I use Gentoo Linux as my main Operating System with and without Xorg. Run and maintain a FreeBSD installation. Some experience with Plan 9

Bash — Efficient and knowledgeable with shell commands and Unix-like terminals.

SVN — Basic understanding and knowledge of the SVN version control system.

Make — Good understanding of how to write makefiles for big projects.

Non-Technical Skills

Fluent in both French and English, written & oral.

Very good self-learning skills acquired through working on my own projects.

Comfortable with both Agile and Test Driven Development.

Very creative in a problem solving environment.

Work Experience

Lockheed Martin   **May 2016 — August 2016**
Contributed to a JavaFX Internal Research and Development project, helping to design custom controls as well as full implementation of many panels. This has taught me to use software development tools such as TestFX and Gradle. Code review and the tooling used for this job helped me improve my programming skills, while giving me a look into development in an enterprise.

Programming Experience

Personal Project   **September 2016 — Present**
Working on implementing a simple freestanding C Kernel for a real-time operating system on the x86 and ARM architectures. Current implementation handles simple scheduling, and very limited threading support.

Personal Project   **September 2015 — October 2015**
Designed and programmed a multi-purpose WebRTC chat application capable of recording audio and video, as well as doing some simple real-time effect rendering.

Personal Project   **June 2015 — August 2015**
Wrote a simple Unix shell using Golang, learning how to make system calls, how to handle child processes with the standard Golang library, and how to implement many Unix commands.

Personal Project   **January 2015 — March 2015**
Designed and implemented a multi-threaded low-latency playback loop for sound cards with separate input and output plugs using the Advanced Linux Sound Architecture API in C, efficient enough to run on low end hardware such as the Raspberry Pi. This program was capable of doing simple Fourier transforms on the sound data to generate sound effects for guitar sound input.

Areas of Interest

Low level/systems programming.

Compilers and programming languages.

Real time programming and tooling.

Natural language processing & machine learning.

Security and cryptography.