

# William Findlay

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## EDUCATION

### Bachelor of Computer Science

September 2015 - April 2020  
Software Engineering Stream  
CGPA: 11.0 (A)

*Carleton University  
Ottawa, ON*

## WORK EXPERIENCE

### Teaching Assistant (COMP3000 Operating Systems)

September 2018 - Present

*Carleton University  
Ottawa, ON*

- Ran tutorial sessions for groups of 50 students.
- Took a leadership role to ensure tutorials proceeded smoothly.
- Held weekly office hours and workshops for students.
- Graded assignments and tests and gave appropriate feedback.
- Proctored exams for about 200 students.
- Assisted professor with development and delivery of course material.

### Full Stack Developer

May 2018 - September 2018

*Hilltops Real Estate Group  
(Remotely) Dallas, TX*

- Developed website for a startup student housing company.
- Led a small team of developers working on full stack development of a business website.

### Service Department Supervisor

April 2014 - January 2018

*Metro Ontario, Inc.  
Ottawa, ON*

- Managed day-to-day operations in the front end service department.
- Exhibited superior customer service skills as required.

## PROJECTS (See more on GitHub)

### Raspberry Pi GPIO Pin Driver

- Wrote a Linux kernel module to act as a driver for GPIO pins on the Raspberry Pi.
- Kernel module consisted of a character device driver with full support for asynchronous operations.
- Module supported read and write operations to set active pins, read pin input, and write pin output.
- A full writeup on the module is available at <http://www.wfindlay.com/portfolio/written/3000report.pdf>

### Asciify (ASCII Art Generator)

- Wrote an ASCII art generator CLI in Python3.
- Generator takes an image or GIF as input and produces ASCII art output.
- Full support for color and black and white ASCII art.
- Full support for ASCII animated GIFs.

### Genetic Algorithm for Text Generation

- Wrote a genetic algorithm in C++ to generate a human-readable string from random data.

### Taskmaster

- Wrote GUI workflow management tool in Qt5 and C++.
- Application keeps track of current tasks, upcoming tasks, and breaks and cycles through them with a timer.

## LANGUAGES

### Programming

10,000 or more lines  
C, C++, Python, R

5,000 - 10,000 lines

Java, Javascript, Lisp

1,000 - 5,000 lines

Haskell, Prolog, Vimscrip, x86-64 Intel Assembly

### Markup

Markdown, Rmarkdown, L<sup>A</sup>T<sub>E</sub>X, HTML, CSS

### Human

English, French

## TECHNOLOGIES

Qt, NodeJS, Tensorflow, ReactJS, Git, Bash

## WORKFLOW

### Operating System

GNU/Linux (Arch Linux)

### Window Manager

i3wm

### Terminal and Shell

Termite, Bash

### Text Editor

Vim

### Version Control

Git, GitHub

## TECHNICAL SKILLS

GNU/Linux kernel development

Low-level C development

C++ development

Python scripting

Statistical analysis in R

Documentation in L<sup>A</sup>T<sub>E</sub>X and Rmarkdown

## GENERAL SKILLS

Team leader

Dedicated

Goal-oriented

## EXTRACURRICULAR

Linux nerd and free software enthusiast

Computer builder

Study group leader for friends and peers

Former Grandmaster Starcraft II player