

# ANDREW PAK

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📍 Toronto, Canada

🔗 [github.com/Dimuendo](https://github.com/Dimuendo)

🏠 [andrewpak.me](https://andrewpak.me)

## SKILLS

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C++

Java

Python

JavaScript

React

HTML

CSS

Flask

Linux

Git

SQL

MongoDB

## WORK EXPERIENCE

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### Scotiabank

#### Data Scientist Co-op

📅 January 2020 - April 2020

📍 Toronto, Ontario

- Created python scripts that scraped international banking data from various external sources. Then used that data to create models in R that predicted future expected credit losses for Peru using linear regression based on several macroeconomic variables such as copper prices and GDP
- Used python-flask to create a calculator along with a web interface that calculated the expected credit losses associated with a given number of defaults and downgrades that the user input

### Motoinsight

#### Software Engineer Co-op

📅 January 2018 - April 2018

📍 Toronto, Ontario

- Developed python scripts that employed pandas to track changes across hundreds of excel sheets each with thousands of data points regarding residual and incentive data for different automobiles
- Used python to automate the creation of email marketing campaigns by pulling vehicle information and incentives from manufacturer websites and populating custom HTML templates with the data

## PROJECTS

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### CHIP-8 Emulator

C++

- Emulator written fully in C++, implemented interpreter for 35 different opcodes, 16 registers, 16 level-deep stack, 2 timers, 16 input keys, and 64x32 pixel display
- GitHub: [github.com/Dimuendo/chip8-emulator](https://github.com/Dimuendo/chip8-emulator)

### TFTComps

Python, Flask, React, Javascript, MongoDB - [tftcomps.lol](https://tftcomps.lol)

- This website aggregates the match data of the top 1000 players for the online video game Teamfight Tactics, it displays the most popular team compositions and statistics pertaining to items, units, and traits
- Front-end created with React and MaterialUI, back-end created in python-flask
- MongoDB database that stores data for over 1000 different players and 20000 different matches
- Front-end: [github.com/Dimuendo/tftcomps](https://github.com/Dimuendo/tftcomps) | Back-end: [github.com/Dimuendo/tftstats-backend](https://github.com/Dimuendo/tftstats-backend)

### Pathfinding Visualizer

Javascript, React, HTML, CSS - [dimuendo.github.io/pathfinding-visualizer](https://dimuendo.github.io/pathfinding-visualizer)

- This project allows the user to visualize different pathfinding and maze-generation algorithms
- Implemented Dijkstra's, A\* search, breadth first search, and depth first search
- GitHub: [github.com/Dimuendo/pathfinding-visualizer](https://github.com/Dimuendo/pathfinding-visualizer)

## EDUCATION

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### University of Waterloo and Wilfrid Laurier University

#### Computer Science and Business Administration Double Degree

📅 2016 - 2021 (Expected)

📍 Waterloo, Ontario

- Relevant Coursework: Data Structures, Algorithms, Object-Oriented Software Development, Database Management