

# LUCY YU

5A Honours BCS and BBA

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## Skills

### Programming Languages

Python ● ● ● ● ●

Bash ● ● ● ● ●

Terraform ● ● ● ● ●

C++ ● ● ● ● ●

PSQL ● ● ● ● ●

### Programming Frameworks

Django ● ● ● ● ●

Angular ● ● ● ● ●

React ● ● ● ● ●

### Development Tools

Git ● ● ● ● ●

Agile ● ● ● ● ●

VS Code ● ● ● ● ●

Linux ● ● ● ● ●

Docker ● ● ● ● ●

## Extracurriculars

Basketball

Ultimate

Muay Thai

Guitar

Video Games with Friends

Coaching

Foodie

Skateboarding

## Work Experience

DevOps Engineer | NerdWallet

Jan 2021-Present

- Redesigned the image build system using **Docker**, **AWS CodeBuild**, and a serverspec based testing software to parallelize image builds to save engineers time to test and deploy and mitigate deployment risks
- Automated a customizable and less complex image creation process
- Used **Terraform** to create infrastructure to communicate with **AWS services** to reduce repetitive tasks and improve technology maintenance

Full Stack Developer | Local Line

Jan 2020-Apr 2020

- Increased customer satisfaction by 40% by restructuring checkout experience with **Python**, **Angular**, and **PSQL**, and **Django** framework
- Improved efficiency of downloading large selections of data by **300%** of its original time and **removed server hang** through optimizing code
- Remodeled the design of the web application to implement a **Model-View-Controller** design pattern

Cybersecurity Analyst | Toronto-Dominion Bank

Jan 2019-Apr 2019

- Constructed **Python** scripts to automate data collection of Web Certificate information, reducing labour time by **3x** the benchmark
- Wrote **VBA** scripts to generate monthly KPI reports to monitor improvements in certificate management
- Facilitated meetings with other IT teams to ensure business operations **run efficiently** and are continuously improving

## Projects

Adaptive Dynamic Programming (*Coursework*)

- Implemented the **active dynamic programming algorithm** for reinforcement learning by balancing exploration and exploitation
- Used the **Bellman equation** to update optimistic policy estimates

Personal Website

- Developed from scratch using **React** with typing animation written in **JS**

Biquadris (*Coursework*)

- Programmed a local two-player Tetris game in **C++** using a **Model-View-Controller** design pattern and complex data structures
- Adhered to the four **Object-Oriented Programming** principles and followed a strict UML diagram

Restaurant Randomizer

- Python3** script to take in user input and filters through an **Excel spreadsheet** to extract relevant data according to user input with **numpy** and **pandas** and randomizes a restaurant within the accepted subset
- Data is organized to prioritize places according to ratings provided by affected parties and weighted equally between all parties
- Significantly reduces indecision time and aids with decision paralysis

## Education

University of Waterloo / Wilfrid Laurier University

(Expected) 2017-2022

Candidate for Double Degree Bachelor of Computer Science and Bachelor of Business Administration