

PAULINA GRACE KHEW

SYSTEMS DESIGN ENGINEERING AT THE UNIVERSITY OF WATERLOO

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TECHNICAL SKILLS

Languages: Python, JavaScript, SQL, C++, PHP, HTML, CSS

Libraries: Pandas, Keras, BeautifulSoup, Pygame, jQuery, Bootstrap, SQLite, React, Numpy

Frameworks and Tools: Flask, Django, Larabel, Git, Kubernetes, Docker, Jupyter Notebook, PostgreSQL, Minikube

Awards: University of Waterloo President's Scholarship, Motorola Engineering Scholarship

WORK EXPERIENCE

ApplyBoard

Kitchener, ON

May – Dec 2020

FULL-STACK SOFTWARE ENGINEER (4-MONTH CO-OP + PART TIME)

- Solely responsible for **OCR** project that processes various documents using **OpenCV** and **Google Cloud Vision**
- Implemented **preprocessing techniques** such as adaptive thresholding, image rotation, and face detection in order to raise the accuracy of parsing data from passports, IELTS, and Aadhar documents by **over 30%**
- Created microservice with **continuous deployment** using **Docker** and **Kubernetes** and has **100% code coverage**
- Investigated and **implemented new technologies** by creating technical proposals, user walkthroughs, and demos

ApplyBoard

Kitchener, ON

Sep – Dec 2019

FULL-STACK SOFTWARE ENGINEER (CO-OP)

- Worked on an intermediary **Flask** service that utilizes **webhooks** to **parse** and **classify** incoming emails and **automates** tasks such as updating profiles and sending notes to students on the ApplyBoard platform
- Spearheaded a **machine learning** project that performs **sentiment analysis** on incoming emails and flags urgent emails on **FrontApp**, a corporate email platform used by the Customer Experience team
- Automated the login, autofill, and submission of applications on various school portals such as **OCAS** and **OUAC** using a **Google Chrome extension** written in **JavaScript** and **Jquery**
- Developed a **React** dashboard to be used by the commissions team that interacts with an **SQL database**

Fairtax

Oakville, ON

Jan 2019 – Apr 2020

JUNIOR SOFTWARE DEVELOPER (4-MONTH CO-OP + PART TIME)

- Developed, designed, deployed, and tested features for the **Django** GrantMatch app using **Python**
- Automated the manual process of creating marketing PDFs by developing a section on the **PHP** FTXGrants system that dynamically renders website information into a PDF using **HTML**, **CSS**, and **JavaScript** through **PhantomJS**
- Performed **data analysis** with **Pandas** and **BeautifulSoup** to scrape and clean data within **Jupyter Notebooks**

CODING PROJECTS

ApplyBoard

Kitchener, ON

Dec 2019

IMAGE CLASSIFICATION

- Taught myself how to create **deep learning models** for **image classification** using Python's **Keras** library
- Trained an **image classification** model for verification of uploaded documents in an **OCR** project at **ApplyBoard**

Hack the Valley

Toronto, ON

Feb 2019

OUTWEATHER

- Created a **Python Flask** web application that **displays the weather** and **suggests outfits and accessories** based on the user's location and information from the **OpenWeatherMap API**

Byte Academy

New York, NY

Jul 2018

WEB TRADER

- Constructed a **Flask** web application for trading **Nasdaq** stocks using the **Intrinio** stock quote **API**
- Employed **SQL** and **Python** to create and interact with **SQLite3** databases used to store user information, transactions, and holdings

EDUCATION

University of Waterloo

Waterloo, ON

Sep 2018 - Apr 2023

CANDIDATE FOR BACHELOR OF APPLIED SCIENCE (BASc)

- Learned **object-oriented programming** in **C++** in *Digital Computation* and *Data Structures and Algorithms* courses
- **Motorola Engineering Scholarship** – presented annually to one outstanding student entering first year
- **University of Waterloo President's Scholarship** – awarded to students with admission averages above 90%

Byte Academy

New York, NY

Jul 2018 – Sep 2018

PYTHON FULL-STACK IMMERSIVE BOOTCAMP

- Successfully completed a 240-hour curriculum of study in full-stack web development program learning **Python**, **SQL**, **Pandas**, **JavaScript**, **Flask**, and **Django** as well as how to navigate the **Linux operating system**