# PAULINA GRACE KHEW

# SYSTEMS DESIGN ENGINEERING AT THE UNIVERSITY OF WATERLOO

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#### TECHNICAL SKILLS

Languages: Python, PHP, Ruby, JavaScript, TypeScript, SQL, C++

Frameworks and Tools: Flask, Django, Laravel, Slim, Git, Rails, Docker, Jupyter Notebook, PostgreSQL

#### **WORK EXPERIENCE**

#### Shopify

Remote Sep 2021 – Present

#### SOFTWARE DEVELOPER | BILLING PLATFORM TEAM (Internship)

- Building the tools and primitives that allow teams at Shopify to bill their users for the services they provide through Shopify's Admin API with **REST** and **GraphQL** and an internal billing dashboard built in **Ruby on Rails**
- Implementing a tool in Shopify's internal billing dashboard that utilizes Google Cloud Storage and a user interface created using Shopify Polaris that parses CSV files to automate the assignment of shop credits

#### Shopify

Remote

Jan - Aug 2021

#### SOFTWARE DEVELOPER | DOCS AND API LIBS TEAM (Internship + Part Time)

- Contributed to open-source tools owned by Shopify, including the **Python** Shopify API library, the Shopify **Django** App, the Shopify app **command line interface (CLI)** in **Ruby**, and the Shopify **Node** API library built in **TypeScript**
- Produced an open-source framework-agnostic PHP library that acts as a wrapper for the Shopify Admin API
- Launched the PHP Shopify API Library in under two months, allowing third-party developers to create online and offline access tokens using OAuth, make REST and GraphQL requests, and register and process webhooks
- Created a Laravel application for third-party developers to reference when using the PHP Shopify API Library

# **ApplyBoard**

Kitchener, ON

May - Dec 2020

## SOFTWARE ENGINEER | AUTOMATION TEAM (Internship + Part Time)

- Led development on an OCR project that processes document images using OpenCV and Google Cloud Vision
- Leveraged preprocessing techniques such as adaptive thresholding, image rotation, and face detection to raise the accuracy of parsing information from passports, IELTS, and Aadhar documents by over 30%

#### **ApplyBoard**

Kitchener, ON Sep – Dec 2019

#### SOFTWARE ENGINEER | AUTOMATION TEAM (Internship)

- 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
- Worked on an intermediary API server using Flask 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
- Automated the login, autofill, and submission of applications on various school portals using a Google Chrome
  extension written in JavaScript and jQuery using student profile information from ApplyBoard.com

## Fairtax Oakville, ON

Jan 2019 – Apr

2020

# JUNIOR SOFTWARE DEVELOPER (Internship + Part Time)

- Created a section on the PHP GrantMatch system that dynamically renders website information into a marketing PDF using HTML, CSS, and JavaScript through PhantomJS, a scriptable headless web browser
- Designed, developed, deployed, and tested features for the Django GrantMatch app using Python
- Performed data analysis with Pandas and BeautifulSoup to scrape and clean data within Jupyter Notebooks

## **CODING PROJECTS**

OutWeather

• Created a Python Flask web application that displays the temperature and the weather conditions from the OpenWeatherMap API and suggests outfits and accessories based on the user's location

Web Trader

- Constructed a Flask web application for buying and selling Nasdaq stocks using the Intrinio stock quote API
- Employed SQL and Python to create and update SQLite3 databases used to store user and transaction data

Other

• Spotify Playlist Generator, GitHub Followers Checker

# **EDUCATION**

# University of Waterloo

Waterloo, ON

Sep 2018 - Apr 2023

#### BACHELOR OF APPLIED SCIENCE IN SYSTEMS DESIGN ENGINEERING (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%