

# Olivia Dragoev

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## Skills

**Languages:** Python, Kotlin, Java, C++, C#, C, Go, Scheme, Bash Script

**Databases:** PostgreSQL, MySQL

**Libraries:** XGBoost, Pandas, Numpy, SQLAlchemy, ScikitLearn, Mathplotlib, Plotly, Seaborn, TensorFlow, OpenCV

**Cloud Computing:** AWS Lambda, Amazon S3, Amazon CloudWatch, Amazon DynamoDB, Amazon EC2, Amazon RDS, Docker

**Web Programming:** React, Redux, JavaScript, HTML, CSS, Flask, jQuery, AJAX, Jinja, Bootstrap, JSON

**IDEs:** PyCharm, IntelliJ IDEA, Visual Studio Code, Eclipse

**Tools:** Jupyter Notebook, Git, Jenkins, Jira, Bitbucket, GitHub, GitLab, Zsh, Bash, Vagrant, VirtualBox

**OS:** Linux, Mac OS X, Windows

## Additional Learning

**FastAI Practical Deep Learning**  
Nov 2022 – Present

**CS50x Introduction to Artificial Intelligence**

Dec 2021 – Mar 2022

Gained exposure to AI and ML concepts such as reinforcement learning, probability theory, and NLP through hands-on projects

**CS50x Introduction to Computer Science**

Aug 2018 – Nov 2018

Learned about abstraction, data structures, encapsulation, security, software engineering

## Personal Summary

- Strong work ethic, works well in a collaborative setting

## Education

**University of Waterloo**

Sept 2019 – Expected May 2024

- Candidate for Bachelor of Computer Science, Honours Co-op + Human Computer Interaction Specialization
- Excellent Academic Standing (Sept 2019 - Present)

## Experience

**Software Developer Intern, ML Platform, ODAIA Intelligence Inc**

Sept 2022 – Dec 2022

- Trained and tested XGBoost model on non-aggregated data to evaluate its' global performance against the current model
- Designed and implemented robust architecture for automating the creation of reports, which depict the quality of predictions made by internal ML algorithms, using Plotly and Pandas
- Developed script scheduled to run nightly to ingest latest prescription data into database tables, used across the platform

**Software Engineering Intern, ODAIA Intelligence Inc**

Jan 2022 – April 2022

- Rebuilt the infrastructure for producing time series graphs for data validation purposes using Datapane
- Improved backend performance by creating new MySQL tables with indexes to store information previously held in CSV files
- Implemented Python AWS Lambda for exporting healthcare practitioner (HCP) data to a CSV file. Exposed produced CSV file as a REST endpoint
- Ensured responsive and dynamic web design by creating React module to generate HCP information page, also leveraging Redux
- Developed notification module which sends a message containing JSON data about ML-generated score discrepancies to a Slack channel

**Software Engineering Intern, Cisco Systems**

May 2021 – Aug 2021

- Developed Cisco IOS-XE router command parsers and schemas in Python used for networking-related testing
- Contributed to the creation of new infrastructure for routing information base tests using the Python-based pyATS testing framework and ported legacy TCL regression scripts to it
- Developed utilities in Python to perform networking-adjacent tasks
- Worked with team to create a testing demo and presentation to showcase pyATS testing capabilities to other Cisco divisions
- Contributed to developer reference guide concerning network device start-up, configuration, and general information regarding testing

**Web Application Developer, University of Waterloo**

May 2020 – Aug 2020

- Designed an algorithm in Python to detect and handle time conflicts in a course timetable and adjust the information displayed accordingly
- Developed dynamic pages in Flask pulling from PostgreSQL database
- Implemented commit Git hook script to ensure consistent file formatting

## Projects

**Traffic Sign Classification**

Aug 2021

- Built a neural network in TensorFlow and OpenCV classifying 43 different types of road signs based on a provided image with a 94% accuracy rate

**PDF Generator Library Related Work**

April 2020 – May 2020

- Developed donut and pie chart components for PDF library in Java by using Bezier curve approximation

- Writes clean and easy to understand code
- Quick learner, attentive to detail
- Excellent written and oral communication in English and French
- Knowledge of Cantonese

## **Hobbies & Interests**

- Artificial Intelligence
- Psychology
- Creative Writing
- Film Analysis
- Gaming

- Designed examples in Java, C#, and Go to highlight the library's capabilities
- Implemented SVG path parser for use with the PDF library

### **Bookkeeping Web Application**

Oct 2018 – Nov 2018

- Developed an accounting web app with Python 3 and Flask to manage transactions for small businesses
- Maintained user and financial data using a MySQL relational database
- Used JavaScript for data validation and AJAX for client-server communication
- Designed the user interface using HTML, CSS, and Bootstrap

### **Stock Trading Web Application**

Oct 2018 – Nov 2018

- Implemented a web application with Flask and Jinja to manage stock portfolios using real-time IEX API stock quotes transmitted as JSON data

### **Article Map Web Application**

Oct 2018 – Nov 2018

- Implemented a web application with Flask and jQuery that allows users to search for articles in different locations on a map embedding the Google Maps JavaScript API