Catherine Zhou

Passionate in data engineering and analysis for career & Personally interested in cooking and baking.

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4A CS/Data Science/C&O/Psychology Student at University of Waterloo looking for a New Grad position after August 2023

Skills

Programming   Python (NumPy, Pandas, Plotly, PyTorch), C/C++, SQL, Bash, R, C#, Scala, Java

Technologies   Google Cloud Platform (BigQuery, Cloud Composer, Airflow), Linux, Git, SSIS, VSCode, IntelliJ, Power BI

Education

University of Waterloo
September, 2019 - August, 2023

Data Science/Bachelor of Computer Science
Waterloo, ON, Canada

- </> Minor in **Psychology** and **Combinatorics & Optimization**.
- </> **Relevant courses**:
  Computational Statistics & Data Analysis (92%), Data Structures & Migration (96%), Intro to Database Management (96%)
  Applied Linear Models (93%), Intro to Combinatorics (100%), Intro to Optimization (98%), Intro to Machine Learning (99%)
  Modernizing Data Lakes and Data Warehouses with Google Cloud, Building Batch Data Pipelines on GCP
- </> Major Average: **95%**, Faculty Average: **94%**, Cumulative Average: **92%**

Work Experience

Loblaw Companies Limited
May, 2022 - August, 2022

Data Engineer Co-op
Brampton, Ontario, Canada

- </> Created 10+ **Airflow DAGs** using **Python** and **SQL** to build data pipelines in the **Google Cloud Platform**.
- </> Developed **materialized tables** in **Google BigQuery** with Airflow to support **metadata management** and **data observability**.
- </> Implement **data quality** checks with **Great Expectation** and designed **automated slack notifications** to track poor-quality data.
- </> Created a Data Observability **summary dashboard** using **Power BI** to display data trends and usage insights.

Bank of America Merrill Lynch
September, 2021 - December, 2021

Software Developer Co-op
Toronto, Ontario, Canada

- </> Developed a **dashboard** that collects and **visualizes** log information using Python libraries **dash**, **NumPy** and **Plotly**.
- </> Created independent browser sessions to the dashboard to enhance user experience.

Teranet Inc.
January, 2021 - April, 2021

ETL Quality Assurance Analyst Co-op
Toronto, Ontario, Canada

- </> Developed **data migration** scripts using **T-SQL** and **SSIS** to migrate multiple database systems.
- </> Updated **T-SQL** scripts to enhance the testing system for **ETL** pipelines.

Relative Projects/Experience

Image Classification
May, 2022

- </> Classify images of household objects into their corresponding categories using **Deep Learning**.
- </> Used **ResNet-50 convolutional neural network** and applied the pretrained model from **PyTorch**.
- </> Achieved 100% training accuracy and 81% testing accuracy.

OS/161
September, 2021 - December, 2021

Building on the given instructional operating system, implement **synchronization**, **system calls**, and **virtual memory system**.

Settlers of Catan Game Development
November, 2020 - December, 2020

- </> The project is a variant of the game Settlers of Catan and developed through **C++**.
- </> We use the **MVC structure** and other design patterns such as **template method** and **factory method** to implement this game.

Shanghai Daozhi Network Technology Co., Ltd
July, 2017 - August, 2017

Marketing Intern
Shanghai, China

- </> Operated official **social media accounts** through updating posts across platforms and interacting with customers.
- </> **Analyzed** the official website of luxury brands on how to enhance customer experience.
- </> Applied **cold calling** to reach potential customers and advertise the product.