Alex Ostapenko

oleksandra.ostap@gmail.com | linkedin.com/in/oleksandra-ostapenko | Google Scholar |

Work Experience

Data Consultant | Validere Inc, Toronto | April 2024 - Present

- Improved software **efficiency by 30%** by developing and maintaining a data-processing pipeline with **Python, SQL, and AWS**.
- **Designed** and **deployed** a Python-based automation tool for transferring and formatting client **aerial flyover data** into the company platform, cutting upload time by **~50x**.
- **Identified** a machine-learning-based project that saves **>$40k** per year for the company.
- Build client-facing AWS Quicksight dashboards and **deliver presentations** to communicate performance results on multiple projects.

Research Scientist | *University of Toronto* | *October 2023 - March 2024*

- Delivered a **machine learning pipeline** (PyTorch, Scikit-Learn) to accelerate the discovery of high-performance molecules.

Technical Consultant | *D2A Analytics* | *June 2023 - March 2024*

- Developed and deployed a production sentiment analysis application using **Python** (Large Language Models (LLMs)), which **accelerated** clients' data processing workflow by **~35 times**.

Research Assistant | *University of British Columbia* | *September 2021 - August 2023*

- **Designed** and **led** a new observational proposal for the **3rd biggest interferometer** in the world. The project was selected for execution among **>1700** other applications.
- Developed a **Python package** for **statistical** and **image analysis** of ALMA data. Performed data modeling, **statistical analysis**, and simulations using **Python**, R, scientific software, and remote high-performance clusters via SSH for large-scale data.

Intern | *Jagiellonian University* | *July 2019, July 2020*

- Performed time series and statistical analysis, resulting in publication and conference presentations.

Education

Master of Science in Physics and Astronomy | The University of British Columbia | 2021 - 2023
Thesis Focus: Spatial Analysis of Astronomical Objects. Image analysis and software development for the telescopes (ALMA, Chandra, JWST).
Bachelor of Science in Physics and Astronomy | Taras Shevchenko National University of Kyiv | 2017 - 2021 | Diploma with honours. GPA: 3.8/4

Relevant Tools and Skills

Python (pandas, numpy, PyTorch, TensorFlow, Scikit-Learn, scipy, matplotlib, etc.), SQL, Machine learning (regression, clustering), GIS (Leafmap, geopandas, rasterio, shapely, etc.), GitHub, AWS, Amazon Quicksight, Datadog, Metabase