

Alex Ostapenko

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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**.
- 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** and 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

