

# ALINA YILDIR

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## PROFILE

Data Science and Analytics specialist with expertise in end-to-end data workflows, including ETL pipelines, dashboard development, forecasting models, and machine learning solutions. Skilled at delivering actionable insights that support strategic decisions in healthcare, government, finance, and technology.

## SUMMARY OF SKILLS

**Programming & Data Analysis:** Python (pandas, NumPy), SQL — data wrangling & quality assurance, exploratory analysis & feature engineering, statistical testing & inference  
**Data Visualization & BI Platforms:** Power BI, Power Automate, Tableau, D3.js, Matplotlib, Seaborn — report development, dashboard design, automated workflows  
**Machine Learning & Deep Learning:** scikit-learn, XGBoost, LightGBM, Prophet, TensorFlow/Keras, PyTorch — model training & validation, cross-validation, hyperparameter tuning, ensemble methods  
**MLOps & Cloud Infrastructure:** AWS (S3, SageMaker), Streamlit, Git — model development & tuning, rapid prototyping of model UIs, code versioning & collaboration

## EDUCATION

<b>Master of Data Science and Analytics (Honours)</b> , University of Calgary	2025
<b>Certificate in Artificial Intelligence</b> , University of Toronto School of Continuing Studies	2024
<b>Certificate in Data Science</b> , University of Toronto School of Continuing Studies	2022
<b>Ontario College Diploma (Honours) in Internet Applications and Web Development</b> , Algonquin College	2019

## EMPLOYMENT EXPERIENCE

<b>Data Scientist &amp; Co-Founder</b> SnowyOwl Data, Edmonton, Alberta	Oct 2025 – Present
<ul style="list-style-type: none"><li>Leading the development of BeWell360, a holistic wellness tracker that uses data science and analytics to deliver insights on nutrition, sleep, fitness, and personal development.</li><li>Designing wellness challenges with Canada-inspired themes to promote healthier lifestyles and boost user engagement.</li><li>Leveraging data-driven insights to improve user experience and encourage consistent participation.</li></ul>	
<b>Data Science Analyst</b> BGE Indoor Air Quality Solutions, Edmonton, Alberta	May 2025 – Present
<ul style="list-style-type: none"><li>Built Power BI reports and dashboards across Finance, HR, Operations, and IT, enabling cross-functional reporting and data-driven leadership decisions.</li><li>Created a company-wide Power BI JSON theme to enforce visual consistency and accelerate development.</li><li>Automated reporting pipelines from Access databases using Power BI and Power Automate, streamlining workflows and improving operational efficiency.</li><li>Designed and deployed a reporting solution for the Diamond Rewards program with Power BI, Power Automate, SharePoint, and Forms, providing real-time insights on participation, redemptions, and inventory.</li></ul>	
<b>Research Assistant (Machine Learning)</b> University of Calgary, Calgary, Alberta	May 2025 – Jul 2025
<ul style="list-style-type: none"><li>Engineered end-to-end EEG preprocessing workflows in PyTorch, automating 30s windowing, artifact rejection, cohort normalization, and STFT spectrogram extraction.</li><li>Leveraged transfer learning on an ImageNet-pretrained ResNet-18 with k-fold cross-validation, learning-rate scheduling, early stopping, and data augmentation to train a continuous AHI regression model.</li><li>Validated model performance on held-out subjects to ensure reliable AHI estimation for downstream analytics.</li><li>Details: <a href="https://resnet-18-based-eeg-ahi-regression-pipeline.streamlit.app">https://resnet-18-based-eeg-ahi-regression-pipeline.streamlit.app</a></li></ul>	
<b>Web Publisher (Data Visualization)</b> Health Canada, Ottawa, Ontario	Sep 2020 – Aug 2024
<ul style="list-style-type: none"><li>Developed custom AEM components using D3.js to ingest Health Canada datasets and render interactive charts and tables, enabling dynamic data exploration and actionable insights.</li></ul>	

- Built and maintained WCAG 2.1 AA-compliant pages on [Canada.ca](#) in Adobe Experience Manager, ensuring accessible presentation of data-rich content.

#### **Web Developer (Programming & Data Analysis)**

Mar 2019 – Sep 2019

OPIN, A Portage CyberTech Company, Ottawa, Ontario

- Developed Power BI dashboards from web-traffic exports to track monthly usage patterns and top pages, enabling data-driven decisions around marketing and UX prioritization.
- Built and maintained WCAG 2.1 AA-compliant Drupal websites for clients such as [Holland Bloorview](#), [Hydro Ottawa](#), and [York Region DSB](#), improving usability and accessibility.
- Refactored and documented HTML, CSS, JavaScript, and PHP codebases, enhancing site performance, maintainability, and scalability.

#### **Doctoral Researcher (Data Analysis & Visualization)**

Nov 2013 – Mar 2016

National Academy of Sciences of Ukraine, Kyiv, Ukraine

- Collected, validated, and structured experimental datasets for statistical modelling, enforcing rigorous data-quality checks to ensure accuracy and consistency.
- Produced analytical reports and data visualizations that drove insights, supporting [peer-reviewed publications and patented innovations](#).
- Presented findings at international conferences, translating complex analyses into clear, actionable insights for diverse audiences.

### **SELECTED PROJECTS**

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#### **[AF Risk Prediction](#) | Python (pandas, NumPy), Seaborn, Power BI, XGBoost, Streamlit, LangChain, DeepSeek API**

Developed an end-to-end pipeline to forecast new-onset atrial fibrillation from 12-lead ECG and EHR data; trained XGBoost models for patient risk stratification and deployed a Streamlit app with DeepSeek chatbot for interactive clinical insights. Presented at **Statistical Society of Canada Annual Meeting 2025**.

#### **[Nutrient Composition of Common Foods](#) | Python (pandas, NumPy), Tableau, Streamlit, LangChain, OpenAI API**

Developed interactive dietary analytics from the Canadian Nutrient File; delivered a Tableau dashboard for nutrient comparisons and a Streamlit app featuring clustering-driven insights and an AI chatbot for personalized nutrition guidance. Presented at **YYC DataCon 2025**.

#### **[Olympic Medal Performance Analysis](#) | Python (pandas, NumPy), Seaborn, Power BI, scikit-learn**

Modelled the impact of GDP and population on 2024 medal counts using regression and clustering; created interactive visualizations to highlight key drivers.

#### **[Enhancing Bank's Personal Loan Campaign](#) | Python (pandas, NumPy), Seaborn, Power BI, scikit-learn, TensorFlow/Keras**

Built a sequential neural network to predict customer responsiveness to personal loan offers; executed data preprocessing and feature engineering, conducted hyperparameter tuning and cross-validation, and delivered a high-performance model to drive targeted marketing.

#### **[Credit Card Default Prediction](#) | Python (pandas, NumPy), Seaborn, Power BI, scikit-learn, XGBoost**

Built predictive models to forecast credit card defaults from demographic and financial data; performed exploratory analysis and feature engineering, visualized key distributions, and trained and compared regularized logistic regression, random forest, and XGBoost using k-fold cross-validation for robust risk prediction.

#### **[Data-Driven Department Optimization](#) | Python (pandas, NumPy), Seaborn, Power BI, scikit-learn, XGBoost, Prophet, TensorFlow/Keras, NLTK**

Designed a comprehensive cross-department analytics suite: predicted HR turnover with logistic regression and neural networks; segmented marketing and sales audiences using K-Means and autoencoders; generated sales forecasts via Prophet; and performed PR sentiment analysis with Naive Bayes and logistic regression, enabling data-driven strategic decisions.

### **AWARDS**

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**Diamond Rewards – Be the Expert** (2025), BGE Indoor Air Quality Solutions

**Assistant Deputy Minister's Merit Award – Collaboration & Service Excellence** (2023), Health Canada

**Assistant Deputy Minister's Merit Award – Contribution to the Improvement of the Health of Canadians** (2023), Health Canada