# MAYA ABEDI

Toronto, CA. LinkedIn Portfolio Website GitHub

## PROFESSIONAL SUMMARY

Results-driven Data Scientist with a master's degree in AI and 5+ years of experience in a variety of data science roles to drive strategic decision-making with applications in various industries. Proficient in Python programming and well-versed in various Machine Learning and Statistical algorithms, including supervised and unsupervised learning, deep learning, and ensemble methods. Experienced in deployment of models in a cloud-based environment, hold 3X Microsoft Azure certifications, including Data Scientist Associate and AI Engineer Associate. working knowledge of AWS services. Solid experience in analytical skills including modeling, interpreting, and visualizing large datasets using Tableau, SQL, and Python libraries.

## TECHNICAL SKILLS

- **Programming Languages:** Python, SQL, Spark SQL, PySpark, JavaScript, HTML, and CSS.
- **Software Expertise:** TensorFlow, Keras, Sci-kit learn, SciPy, Pandas, OpenCV, NumPy, Pyodbc, Statsmodels, GIT.
- **Visualization Tools:** Tableau, PowerBI, and Python visualization libraries like Matplotlib, Seaborn, and Plotly.
- **Cloud Platforms:** Azure (Machine Learning studio, Synapse, Application insight, Azure function, Logic App, Azure storage account, Azure Databricks). Databricks, AWS (Lambda, S3, EC2, AWS Glue, DynamoDB, RDS, and Athena).
- **Statistical Analysis:** Hypothesis Testing, A/B Testing, PCA, and Time Series Analysis, anomaly detection.
- **Machine learning:** Mixture models, scenario analysis, Regression Analysis, Neural Network, Time Series Analysis, Decision Tree, HPO, and Ensemble methods like Random Forest, XGBoost, and AdaBoost.
- **Deep Learning:** CNNs, RNNs, Conv-LSTMs, Bi-LSTMs, Autoencoders.

## CERTIFICATIONS

- Microsoft Certified: Azure Data Scientist Associate (*Designing and Implementing a Data Science Solution on Azure*)
- Microsoft Certified: Azure AI Engineer Associate (*Designing and Implementing a Microsoft Azure AI Solution*)
- Microsoft Certified: Azure AI Fundamentals
- Databricks Generative AI
- Career Essentials in Generative AI by Microsoft and LinkedIn

## WORK EXPERIENCE

**Data Analyst, Analytics and Insights, AI Products,** The Globe and Mail, Toronto. Apr 2022 – July 2023

- Produced predictive and perspective A/B testing revenue reports and key performance metrics like confidence level, and p-value to analyze revenue opportunities and process gaps using SQL, Tableau Flows, and built kite ETL.
- Developed Spark application using Spark–SQL and Pyspark in Databricks for data extraction, transformation, and aggregation from Snowflake to build a Machine Learning Archive model based on the article ages.
- Developed end-to-end automation of advanced analytical products, data models/scripts, using Python, as well as the design of internal and client-facing analytics Tableau, dashboards devoted towards AI products (A/B testing)
- Provided actionable ad hoc analytics insights by visualizing key insights and trends, enabling business stakeholders and management to make data-driven decisions.
- Built descriptive and statistical model to forecast optimal stop rate metrics based on revenue and conversion balance, therefore developing strategies to retain registered users on the website.
- Conducted data profiling and ad hoc analysis using SQL, Python, spark SQL, and Tableau to identify data trends and patterns of likely subscriber users, resulting in actionable insights and improved business outcomes.
- Collaborated in building Conversion prediction models that aim to forecast which users are most likely to subscribe or convert from free to paid accounts.
- Performed Time-to-Conversion model and Survival analysis like regression to measure the funnel that takes for a user to convert from a free user to a paying subscriber.
- Developed automated Python and SQL-based quality models to ensure the integrity of onboarding and existing clients' data.
- Worked closely with key clients, and stakeholders to support the development of proprietary and user, business, and technical requirements of analytical products and present results (weekly, monthly presentations).

**Application Data Scientist,** MUUTAA, Montreal. June 2021 – Apr 2022

- Developed an ARIMA and SARIMA timeseries to forecast stockout for inventory management of a healthcare company.
- Built an advanced LSTM model for safety stock to forecast demand and inform purchasing decisions.
- Constructed Predictive Modeling Techniques such as Random Forest and Gradient Boosted Model inventory levels and purchasing trends.
- Developed NLP sentiment analysis models using BERT to extract insights from individual clinicians' comments to inform supply chain decisions and align them with clinical practices.
- Built complex SQL stored procedures using PostgreSQL to calculate different statistical algorithms, such as inventories, stockouts, demands, etc.
- Constructed Prophet in time series forecasting models to predict future demand, enabling efficient inventory planning considering multiple seasonality, and capturing effects of holidays and special events.
- Conducted data analysis of large data stored in AWS S3 and extracted insights using Athena, resulting in identifying data requirements and improved decision-making.
- Implemented Python/SQL ETL data pipelines to enhance business processes and automate data extraction from various sources into the PostgreSQL database.
- leveraged AWS Glue Catalog with crawler to seamlessly extract, transform, and load (ETL) data from S3, and performed SQL query operations.
- Conducted design, build, and implement analytical solutions to Provide recommendations and market insights via PowerBI Presentations that support solving complex business problems.

**Artificial Intelligence Researcher,** Kavoshcom R&D Group, Tehran. Aug 2020 – Feb 2023

- Implemented state of art Noise Reduction in signals using Fully Convolutional Autoencoders and Recurrent LSTM
- Built CNNs to automatically learn hierarchical features from ECG signals and perform heart disease diagnosis classification and arrhythmia classification tasks.
- Conducted analysis on assessing patient disease and applied patient segmentation with clustering algorithms such as K-Means and hierarchical clustering using scikit learn.
- Developed ensemble methods, specifically XGBoost and Adaboost, to enhance accuracy and robustness in ECG classification, resulting in improved diagnostic performance for healthcare applications.
- Implemented Machine Learning algorithms for dynamic branch prediction, resulting in a significant doubling of accuracy in software networks TensorFlow.
- Designed, built, and deployed a set of Python modeling APIs for patients' analytics, which integrates AI systems with existing applications for various patient disease predictions.
- Prototyped and iterated potential algorithms and pipelines, leveraging historical data to enhance model accuracy and optimize data-driven decision-making processes.

**Application Data Scientist,** Telecom Inc., Tehran. Oct 2018 – Apr 2021

- Conducted research and successfully designed a predictive telecommunication model using deep learning for anomaly detection to identify network irregularities and improve overall operational efficiency.
- Incorporated and automated the predictive models into an interpretable AI framework for capacity planning and long-term forecasting.
- Designed optimal data-driven action plans to expand the company's target customers by predicting the market growth and requirements from past to present customer data.
- Analyzed interaction between the target and input features using partial dependency plots (PDP).

## EDUCATION

**M.sc of Computer Science,** University of Tehran, Tehran. Sep 2019 – Mar 2022

- **Teacher Assistant:** Tutored undergrad and graduate students in Neural Network, Machine Learning, and Statistics courses.
- **Thesis**: Noise Reduction in Electrocardiogram Signals Using Fully Convolutional Autoencoders and Recurrent LSTM.

**Bachelor's degree, Computer Science,** Shiraz University of Technology, Shiraz. Sep 2014 – Aug 2018

- **Thesis Title:** Text analytics to extract and mine scientific papers.
- **Artificial Intelligence Projects:** Text mining for performing classification of biomedical literature.