

# Matthew Lepicier

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## EDUCATION

### M.Sc. in Management and Business Analytics

*Ivey Business School, Western University*

2021 – 2023

*London, ON, Canada*

### M.Eng. in Computer Science and Operations Research

*University of Technology of Troyes | University of Miami*

2016 – 2021

*Troyes, France | Miami, FL, USA*

## EXPERIENCE

### Data Science Consultant

*Data SEA Consulting*

Mar. 2023 – Present

*Toronto, ON, Canada*

- Established end-to-end data chains from custom-built APIs and cloud ingestion to the development of ETL pipelines on Apache Spark organized in a medallion architecture within Azure Databricks' Delta Lake
- Leveraged MLflow to integrate MLOps best practices in streamlining feature engineering processes, deploying of machine learning solutions, and monitoring of production-level models
- Harnessed the power of our analytics solutions to solve complex problems and drive business outcomes for our customers through automating report distribution, establishing self-service data marts, and delivering customer segmentation insights

### Financial Engineer

*ProFolio Investment Management Inc.*

Dec. 2022 – Feb. 2023

*Edmonton, ON, Canada*

- Conceptualized an optimization algorithm minimizing the mean-absolute semi-deviation to select stock portfolios with maximum Sharpe ratio satisfying a given risk profile, set of industry preferences, and required rate of return
- Forecasted expected returns using revisited Fama-French models to enhance inputs of the portfolio optimization model

### Data Scientist

*SAS Institute Inc.*

May 2022 – Aug. 2022

*Toronto, ON, Canada*

- Addressed a growing demand for a coding version of Cortex analytics simulation, using SAS's open-source APIs to integrate Python, R, and SAS notebooks within SAS's distributed server environment - used worldwide as a case-based machine learning and cloud computing teaching platform within universities and companies' data science departments
- Implemented multiples predictive machine learning pipelines in partnership with HEC Montreal's ERPSim Lab Professors to assess the quality of various candidate business use cases for the Cortex analytics simulation platform

### Data Analyst

*Danone*

Feb. 2021 – Jul. 2021

*Paris, France*

- Collaborated with the Mexican and German teams to build a proof-of-concept for a digital-twin by creating a suitable data model using SQL and DAX to provide an end-to-end data analytics solution on Power BI and Azure
- Created a tailor-made algorithm using Python and Selenium to web-scrape unstructured geographic data about plants location and HR data about employees' workplace profile to ingest and clean it a JSON format for business purposes

### Operations Research Analyst

*Mars Inc.*

Jan. 2020 – Jul. 2020

*Orleans, France*

- Developed a fully-automated modified exponential moving average model using visual basic to forecast upcoming workload daily by analyzing sales data and SAP transactions to smoothen operations: achieved 94% of accuracy
- Modeled a bin packing problem and coded optimization heuristics on AMPL to process shipment data and highlight potential opportunity for truck-load improvement: up to 2.5 pallet gain identified
- Automated data queries through SQL and M language on a TMS database to merge ad-hoc reports into one centralized Power BI Dashboard to enhance management analytics by providing scorecards and standardized KPIs

## PROJECTS

### Unsupervised Customer Segmentation - Deloitte and Scotiabank | SAS

Mar. 2022 – Apr. 2022

- Leveraged SAS and SQL queries to consolidate and prepare data for further analysis; calculated new metrics and identified high-quality customers using k-means clustering and PCA to apply effective acquisition and cross-sell marketing strategies

## SPECIALIZED SKILLS

**Programming:** Python, PySpark, R, SAS, Spark SQL, VBA, AMPL

**Software:** Databricks, SAS Viya, Dataiku, DataRobot, Jupyter, Cplex, Git, MatLab, Power BI, Tableau, Excel, FiveTran

**Libraries:** MLFlow, Scikit-learn, SciPy, XGBoost, TensorFlow, Pandas, NumPy, Matplotlib, Seaborn, Selenium, Beautiful-Soup

**Languages:** English : Fluent | French : Native | Spanish : Intermediate