# Matthew Lepicier

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## **EDUCATION**

M.Sc. in Business Analytics

2021 - 2023

Ivey Business School, Western University

London, ON, Canada

M.Eng. in Computer Science and Operations Research

2016 - 2021

University of Technology of Troyes | University of Miami

Troyes, France | Miami, FL, USA

#### EXPERIENCE

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 Jupyter 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 data pipelines and predictive machine learning models to assess, in partnership with HEC Montreal's ERPSim Lab Professors, quality of various candidate business use cases for the Cortex analytics simulation platform

Data Analyst

Feb. 2021 - Jul. 2021

- Danone Paris, France
  - 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 clean and store it in CSV and JSON files for business purposes
    Communicated with Mexican and German teams to build a proof-of-concept by creating a suitable data model using SQL
  - and DAX to provide an end-to-end data analytics solution to develop the Total Cost To Serve on Power BI and Azure

     Extracted and prepared data from different local teams using SQL and Python to increase consultants' time efficiency in

international projects: Network Optimization, Digital Twin, Co-Logistics, and Warehousing Artificial Intelligence

• Supported preparation of an annual meeting between Danone and Carrefour heads of operations in Italy, Spain, France, and Belgium by collecting data and analyzing performance of local teams to feed the presentation

#### Operations Research Analyst

Jan. 2020 – Jul. 2020

Mars Inc.

Orleans, France

- Modeled a bin packing problem and coded optimization heuristics on AMPL to process shipment data to measure, in collaboration with XPO Logistics, room for truck-load improvement: up to 2.5 pallet gain identified
- 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
- 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

### Goal-Programming Portfolio Optimization - Ongoing | Python

Sep. 2022 - Dec. 2022

• Pulled capital market data from Yahoo Finance API to feed a multi-objective model to optimize the mean-absolute deviationentropy of a portfolio using the gradient descent algorithm and Monte-Carlo bootstrapping cross-validation

#### 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

### Natural Language Processing - Google Reviews | Python

Jan. 2022 – Apr. 2022

• Scrapped 35,000 ratings and text reviews from 60 restaurants in China Town Toronto; vectorized data into a bi-grams bagof-word after casing, stemming, and stop words removing steps to train different machine learning models

## K-Link Clustering Algorithm - Affinity Analysis | Python

Sep. 2020 – Jan. 2021

• Performed unsupervised learning using a meta-heuristic and local search moves to optimize allocation of 60 product category among a set of 10 warehouses; resulted in minimized splitting of 22,000 e-commerce orders and cost reduction

#### Specialized Skills

Programming: Python, R, SAS, SQL, VBA, AMPL

Software: Jupyter, Cplex, Gusek, Git, MatLab, Power BI, Tableau, Excel, Power Query

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

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