Piotr Antoniak

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WORK EXPERIENCE

Data Scientist
UBS; CFO Data & Analytics
MAY 2024 - ongoing
Switzerland

- Performed data analysis for a sustainability report, integrating multiple data sources.

Data Scientist
Deloitte; Audit and Assurance
JUL 2023 - MAY 2024
Switzerland

- Building pipeline to explain changes in modeled Credit Losses for a large Swiss bank changing its accounting method from US GAAP to IFRS;
- Improving ETL system extracting data from client's SAP and trading system from excel based to combination of SQL and python. This resulted in reduction of man-hours needed from 4hours to update dashboard to just 5 minutes;
- Building system to extract and analyze the data from scanned documents submitted for loan applications;
- Improving already existing SQL code and Power Bi dashboards.

Analyst
European Central Bank; MacroPrudential and Financial Stability; references
APR 2022 - JUN 2023
Germany

- Development of a top-down reverse stress testing model that allows to simulate thousands of scenarios and test multiple parallel constrains (solvency, leverage, liquidity) of Eurozone banks. It utilizes exposures to interest rates, sovereign bonds, economy on industrial levels and unconventional monetary policy. Model's results are included in bi-yearly ECB's MacroPrudential Report and presented in front of all EuroArea Central Banks Financial Stability/MacroPrudential representatives;
- Fulfilled ad-hoc data requests from various, highly granular databases using SQL;
- Management of data pipelines utilized by members of my teams.

Data Scientist Intern
BMW; Financial Services; references
OCT 2021 - APR 2022
Germany

- Developed proof-of-concept of a search and retrieval system for internal data drive and confluence page;
- Participated in development and deployment of a fraud detection model covering an entire continent - over 80 000 new customers yearly;
- Developed ML model and deployed it as a proof-of-concept for Customer Feedback division. It was trained to classify both sentiment and type of incoming feedback and was an improvement in terms of capabilities and accuracy over previously used rule based model;
- Built a few dashboards/simple pages using streamlit/flask serving as a GUI for ML models.

EDUCATION

Pompeu Fabra University and Universitat Autònoma de Barcelona
Barcelona, Spain
Master's Degree in MacroEconomic Policy and Financial Markets
SEP 2020 – JUL 2021

Thesis: Predictive power in online investing chatter.
8/10

Aberystwyth University
Aberystwyth, United Kingdom
Bachelor's Degree in Economics
SEP 2017 – JUN 2020

Thesis: Evaluation of the post-crisis monetary policy in the USA using Taylor rules.
First class

PROJECTS

Open Domain Question Answering; working demo | *python, torch, streamlit, GPT-3*

- A tool that can answer questions using documents or videos given to it.

Simple chatbot from scratch | *python, torch, flask*

- A simple chat bot that uses predefined question-answer pairs;
- It's simplicity is based on the fact that extending usage is just a matter of updating a .csv file.

Predictive power in online investing chatter | *python, tensorflow, torch, pandas, data streams*

- My Master Thesis.
- I investigated millions of comments on investing/trading forums in order to extract sentiment and check whether users retail traders are so unskilled as claimed by various studies.

GPT-2 twitter bot mimicking Central Banks speeches | *python, torch, scrapping, twitter API, Docker, AWS*
- A Twitter Bot based on GPT-2 further pre-trained on speeches from major Central Banks.

EXPERIENCED IN:

- **Languages**: Python, MATLAB, SQL
- **Libraries**: pandas, numpy, matplotlib/seaborn, pytorch, scikit-learn, scipy
- **Tools**: Power BI, Amazon Web Services, Alteryx

OTHER

- Triathlete
- Mentor at DeepLearning.ai
- T Maelgwyn Davies Prize - Best Economics Dissertation (Aberystwyth, June 2020)