Piotr Antoniak

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WORK EXPERIENCE

Data Scientist
MAY 2024 - ongoing

UBS; CFO Data & Analytics — *Switzerland*

- Performed data analysis for a Sustainability Report utilizing multiple data sources.
- Assisted colleagues with ad-hoc request relating pipeline I helped building.

Data Scientist
JUL 2023 - MAY 2024

Deloitte; Audit and Assurance — *Switzerland*

- Building a pipeline for reporting ECL and Exposure related disclosures (including so-called movement table) for a large Swiss bank.;
- 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
APR 2022 - JUN 2023

European Central Bank; MacroPrudential and Financial Stability; [references](#) — *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
OCT 2021 - APR 2022

BMW; Financial Services; [references](#) — *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)