Piotr Antoniak

0044 07512056719 | pedroantoniak@gmail.com | linkedin | github

EXPERIENCE

MacroPrudential Policy Trainee
European Central Bank

2022 – Present
Germany

- Development of a 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, industries (NACE) and unconventional monetary policy;
- Fulfilled ad-hoc data requests from Supervisory Data Databases and Bloomberg Terminal using SQL and Bloomberg API.

Financial Services Business Model Development Praktikum
BMW; references

2021 - 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 a new feedback - roughly 50 000 new comments each year and was an improvement over previously used rule based model;
- Built a few dashboards/simple pages using streamlit/flask serving as a GUI for ML models.

Hospitality Services
Aberystwyth University

2017 – 2020
United Kingdom

- Part time job in hospitality – barista, bartender, kitchen porter. One year in charge of the evening kitchen.

EDUCATION

Pompeu Fabra University and Universitat Autònoma de Barcelona
Master's Degree in MacroEconomic Policy and Financial Markets

Thesis: Predictive power in online investing chatter.

Barcelona, Spain
2020 – 2021

8/10

Aberystwyth University
Bachelor's Degree in Economics

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

Aberystwyth, United Kingdom
2017 – 2020

First class

PROJECTS

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

- A tool that can answer questions using documents 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.

TECHNICAL SKILLS

- **Languages**: Python, MATLAB, SQL
- **Libraries**: pandas, numpy, matplotlib/seaborn, pytorch/tensorflow, scikit-learn, scipy, pymc
- **Tools**: Git, Amazon Web Services, MS Office, Bloomberg API
- **ML/AI**: Generalized Linear Models, Random Forests, Boosting, SVM, LSTM, RNN, ConvNets, Transformers, MLP, Explainable-AI, Causal Inference

Other

- Triathlete
- Mentor at DeepLearning.ai
- T Maelgwyn Davies Prize - Best Economics Dissertation (Aberystwyth, June 2020)
- Experience trading alternative assets (2017-2018) and options (2019-2020)