

Piotr Antoniak

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EXPERIENCE

MacroPrudential Policy Trainee

2022 – Present

European Central Bank

Germany

- Developed a tool that allows to test multiple constraints (solvency, leverage, liquidity) of Eurozone banks. It utilizes exposures to interest rates, sovereign bonds, industries (NACE classification) 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

2021 - 2022

BMW; 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 entire continent;
- Developed ML model and deployed it as a proof-of-concept for Customer Feedback division;
- Built a few dashboards/simple pages using streamlit/flask serving as a GUI for ML models.

Hospitality Services

2017 – 2020

Aberystwyth University

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

Barcelona, Spain

Master's Degree in Macroeconomic Policy and Financial Markets

2020 – 2021

Thesis: Predictive power in online investing chatter.

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Aberystwyth University

Aberystwyth, United Kingdom

Bachelor's Degree in Economics

2017 – 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*

- 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;
- Its 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)