

Filip Makraduli

filipmakraduli.10@gmail.com | [linkedin.com/in/filipmakraduli](https://www.linkedin.com/in/filipmakraduli) | github.com/fm1320

EDUCATION

Imperial College London

London, UK

Master of Research in Biomedical Research - Data Science (Grade: Distinction)

- 2 research projects & core training lectures in biomedical Data Science subjects

Faculty of Electrical Engineering and Information Technologies

Skopje, MKD

BSc. in Electrical Engineering and Information Technologies

- Coursework in the field of computer architecture, algorithms, electronics, and signal processing

EXPERIENCE

Data Scientist

Sept 2022 – present

Marks and Spencer

London, UK

- Working in outfit personalisation, deep tagging, and embedding-based recommendation systems
- Introduced a novel product similarity solution using sentence transformers and HNSW graphs which does dense vector clustering resulting in better cannibalisation estimation of 13%
- Managed a team of 3 people and created an OKR qualitative metric based on language processing technologies (Entity recognition and LLMs) which led to a higher OKR completion rate and 37% improvement in perceived OKR quality
- Deployed an internal web app to visualise treatment effect, propensity scores, and incremental product sales improving the target groups of over 10K offers as part of the Sparks loyalty program
- Validated the allocation of Christmas shopping offers to 16 million users in the UK Sparks customer base which resulted in 1M new app downloads and 550K new Sparks customer registrations
- Contributed to company code for a LightGBM model for predicting stock file errors from tabular data

Python trainer

March 2022 – August 2022

Keitaro

Skopje, MKD / Malmo, SE

- Developed Python training programs, courses, and materials for employee upskilling in companies

Postgraduate Researcher

March 2021 – Sep 2021

AstraZeneca

London / Cambridgeshire, UK

- Constructed AI pipelines and applied Grad CAM and SHAP algorithms for an end-to-end explainability of 3D CT COVID-19 imaging datasets - evaluated using binarisation thresholds
- Trained 2D image classification with VGG16 and 3D CNN image classification algorithms in Keras/Tensorflow on chest scans datasets - 70% to 76 % testing accuracy

Postgraduate Researcher (Project)

Oct 2020 – March 2021

Imperial College London

London, UK

- Developed a web app for entity recognition and summarisation using 2.5K biomedical literature papers
- Used regular expressions - F1 score: 93.4%, SpaCy ResNet CNN with bloom embeddings - F1 score: 76.8% and pre-trained Bart-large-MNLI model for topic modelling
- I published as a co-author in Frontiers in Digital Health with “Auto-CORPus: A Natural Language Processing Tool for Standardising and Reusing Biomedical Literature” for my involvement with another lab project

Product management consultant

May 2019 – Dec 2019

PNA Technology

Skopje, MKD

- Suggested technology solutions and partly executed the sales processes for an IoT product that tracks and visualises the downtime of machines in factories. Identified customer needs and recommended improvements and secured an investment of 30K € for the business

EXTRACURRICULAR ACTIVITIES

Generated 100K views on TikTok in 24h: Developed a 3-video strategy for an event and tested the videos on my account, generating 100k views in 24h and more than 150k views in a week

Algothon virtual 2021 (4th out of 20 teams): Facilitated a group of 3 in trading data visualisation, data cleaning, and algorithmic trading tasks at a hackathon by the Imperial College Algorithmic Trading Society

Skopje startup weekend 2018 (1st place): Created a business model for a no-code deep learning platform

SKILLS & INTERESTS

Skills: Python, Streamlit, SpaCy, Git, Keras, Huggingface, Pandas, SQL, PySpark, Databricks, NumPy, Langchain, Pytorch, FAISS, Tensorflow, Opencv, Azure ML pipelines, Causal ML, ML Flow, Arduino, Raspberry Pi, Pytest