Augustas Macijauskas

august.macijauskas@gmail.com • Phone: +447915828119, +37061001317 • Nationality: Lithuanian

EDUCATION

University of Cambridge (October 2022 – August 2023; Cambridge, United Kingdom)

- Machine Learning and Machine Intelligence (MPhil, unofficial current grade – 75%).
- Notable topics studied: **Deep Learning; Computer Vision; Probabilistic Machine Learning; Neural Machine Translation; Reinforcement Learning; Advanced Machine Learning; Graph Neural Networks**.
- Thesis titled "Eliciting latent knowledge from language reward models" on interpretability and alignment of LLMs.

The University of Manchester (September 2019 – June 2022; Manchester, United Kingdom)

- Mathematics (BSc, 91.7% final grade, 1st).

WORK EXPERIENCE and PROJECTS

Baltic Institute of Advanced Technology (BPTI) (*Research Assistant*, July 2020 – September 2022; Vilnius, Lithuania)

- Investigation of object **3D geometry reconstruction** using **neural radiance fields**.
    - Read papers, browsed repositories with implementations and adapted them to our needs.
    - Achieved **satisfactory neural view synthesis and reconstruction quality on a reflective object**.
    - Summarized all the successes and learnings in a scientific report.
- 3D point cloud processing.
    - Replicated the Point Transformer architecture for 3D point cloud classification and segmentation.
    - Tweaked the above model to segment out artificially added noise.
- R&D project in cyber security to research and **improve cyber-attack prediction accuracy**.
    - Implemented data cleaning and munging routines to transform the dataset to be suitable for statistical analysis and machine learning.
    - Gained practical skills in doing **statistical and graphical analysis** using pandas and matplotlib libraries, implementing, optimizing, evaluating and interpreting **deep and ensemble learning** model architectures using scikit-learn, PyTorch and fastai libraries, designing experiments to test statistical hypotheses.
- Developed a PyTorch model that utilizes **similarity learning to perform real-world visa stamp recognition** (i.e. classifying the country and direction of travel).
    - Achieved **93% accuracy** on unseen validation data using a ResNet-18 Siamese network architecture with Triplet loss.
    - Wrote an API to use the trained model in production.
    - Summarized the approach and results in a preprint.

Genus AI (*Data Science Intern*, July 2021 – September 2021)

- Explored opportunities to use machine learning to **model video data** in order to **optimize marketing campaigns**.
    - Analyzed data by using **clustering** to gain insight.
    - Exploited pre-trained deep learning models to **extract visual features, detect objects and text**.
- Provided the company with **data-driven insights** about a new market.
- Learnt the basics of **cloud computing using AWS**.
- Improved communication and planning skills through adjustment to the fast-paced startup environment.

SKILLS

Programming Languages: *Python*, MATLAB, JavaScript, C++.

Frameworks and libraries: *PyTorch*, *PyTorch Lightning*, *numpy*, *scikit-learn, transformers*, fastai.

Soft skills: Leadership, communication, pitching.

Languages: native in Lithuanian, fluent in English, basic knowledge of Russian.