Martynas Janonis

London

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GitHub: mjanonis

Education

- **University College London** London, UK
  Bachelor of Science in Computer Science — First Class Honours *Sep. 2017 - Aug. 2020*
  - BSc Thesis: Anomaly detection in parcel X-rays using Siamese and triplet neural networks

Work Experience

- **Quantcast** London, UK
  Machine Learning Engineer *Summer 2021 - Present*
  - Working on a contextual targeting solution — Ara TopicMap. This involves writing, optimising and debugging Spark queries to process massive amounts of unstructured data from the Internet and applying machine learning techniques using Spark MLlib, PyTorch and scikit-learn.
  - Created and maintained complex machine learning pipelines.
  - Fine-tuned, evaluated and productionised large transformer networks for named entity recognition and sentence embedding generation.
  - Developed an internal Python libarary that allows users to easily load datasets from a selected date range.
  - Spearheaded the creation of an internal Python style guide, which had a positive impact on code quality.

- **R&R Technology** Vilnius, Lithuania
  Software Engineer *Spring 2021 - Summer 2021*
  - Developed software for an autonomous hospital disinfection robot using ROS and C++.
  - Set-up the robot's embedded x86 computer by installing and configuring Linux, peripheral drivers and compiling proprietary libraries.
  - Worked on adding real-time rigid object pose estimation capabilities using a depth sensing camera (Intel RealSense) by processing 3D point clouds and generating Viewpoint Feature Histogram descriptors using ROS, PCL and C++.

- **ARM Limited / UCL IXN** London, UK
  Software Developer *Fall 2018 - Summer 2019*
  - Developed software that detects people falling using a live video feed from a camera on a low power embedded system (HiKey 960).
  - Implemented and trained a temporal 3D convolutional neural network on an action recognition task using Keras and TensorFlow.
  - Used quantization to optimise the trained model for inference on a low power device.
  - Achieved 0.83 AUROC on a custom dataset that was heavily imbalanced (80/20 class split).

Skills

Languages: Python, C++, SQL, Bash, Emacs Lisp

Software: Spark, Unix, Git, MLFlow, CMake, gcov, Valgrind, LaTeX.

Libraries: PyTorch, PySpark, pytest, Google Test.

Personal Projects

Spring 2021 Helped develop software that generates artificial images of star clusters from simulated telescope observations using Python. The images were later used to train a neural network classifier.

Winter 2020 Participated in Advent of Code 2020, which involved solving 25 programming challenges in increasing difficulty. Successfully solved all of them using C++.