Mateusz Syrek

Physics & Data Analytics Graduate

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Profile

As a physics and data analytics graduate, I possess a wide set of problem-solving and analytical skills which, coupled with a technical knowledge of both computer science and physics prove excellent for a position within data science and software engineering. My ability to learn and adapt quickly was an invaluable trait upon switching fields from physics to data analytics, where I was able to quickly learn many of the concept used in graduate-level computer science. With me I bring expertise in machine learning, which would prove valuable within a fast-evolving industry such as finance. While creative in finding solutions, I remain realistic in projecting workflow pipelines, structuring a project to meet both deadlines and final goals. Having worked in a large company, I have learned how best to communicate information efficiently across different departments.

Education

2019 – 2020: MSc Data Analytics, University of Warwick

- A predicted distinction classification, currently awaiting final dissertation grade.
- During my master's dissertation project, I specialised in exploring various optimisation algorithms used in training machine learning models. This allowed me to explore different sub-fields of machine learning from computer vision to natural language processing, where I had to implement state-of-the-art models and optimisers for testing and comparison using novel visualisation methods to illustrate high-dimensional parameter spaces.
- Beyond the high-level theories seen in machine learning, I have also explored low-level concepts fundamental to computer science, looking at areas such as system memory and computer security, allowing me to work with low-level languages like C++.

2016 – 2019: BSc Physics, University of Warwick

- Upper second (2:1) classification.
- During module selection I favoured mathematical and computer-based modules, allowing me to develop my numeracy and statistical skills to a high level, providing me with a bridge into data analytics.
- My final year project saw me heavily involved with particle physics, using Python to develop pipelines for processing data from the Large Hadron Collider at CERN. This was done to facilitate the simulation of particle interactions in a search for signatures which may indicate physical phenomena beyond the currently accepted Standard Model.

2014 – present: Various roles, Park Inn by Radisson Bedford/ Mercure by Accor

- For the past six years, alongside my studies I have maintained a part-time position at a large hotel, undertaking various roles from front-of-house duties dealing directly with customers to back-office tasks including event planning and coordination. During my time there, the hotel saw a takeover by the Accor brand, after which I was able to maintain my position under new management.
- As part of a diverse, cross-departmental team I quickly learned how to take the initiative when required and when to follow the lead of others if this benefitted the team. All this has permitted me to develop my teamworking and leadership skills in a professional environment.

Skills

Programming Languages

- Python (4+ Years)
  - PyTorch
  - TensorFlow
  - Scipy
  - Flask / FastAPI
  - Pandas
  - OpenCV / Pillow
  - Apache Spark
- C++ (2+ Years)
  - Extensions for Python
  - PyBind11
  - Neural Networks
  - Large-Scale Computation
- JavaScript (1 Year)
  - ReactJS
  - HTML/CSS animation
  - Visualisation
- R (1 Year)
  - Statistical Analysis
  - Data Visualisation
  - Database Pipelines
- HTML/CSS (2 Years)
  - Web Development
- SQL (1 Year)
  - MySQL

Technical Skills

- Machine Learning
  - Deep Learning
  - Computer Vision
  - Time Series
  - Linear Algebra
  - Numerical Optimisation
  - Data Mining
- Computer Science
  - Algorithms
  - Data Structures
  - Computer Security
  - Computer Architecture
  - Git
  - Database Management
- Cloud Computing
  - AWS
  - Google Cloud

Languages

- English (Fluent)
- Polish (Fluent)