Philip Ekfeldt

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PhilipEkfeldt • PhilipEkfeldt

Skills

General: Machine learning, Statistics, Deep learning, Big data, Natural language processing, Computer vision, Recommender systems, Software development

Languages: Python, SQL, MATLAB, R

Tools: Pandas, Numpy, Scikit-learn, PySpark, PyTorch, SciPy, AWS, Databricks, Jupyter, Plotly, Git

Professional Experience

NBCUniversal — **New York**
Data Science Intern — *Jan 2020 - May 2020*
- Significantly improved the data extraction pipeline in AWS and Databricks and implemented new functionality in Python to extract and join new features for a regression model for predicting impressions for Olympic events.
- Evaluated the significance and impact of new features in R by analyzing linear coefficients and metric improvements.
- Performed analysis on large datasets with PySpark and discovered critical shortcomings in data from suppliers.

NYU School of Medicine — **New York**
Research Assistant — *May 2019 - Dec 2019*
- Developed methods in Python for training machine learning models and evaluating binary classification performance for decoding stimulus from fMRI data, including adding hyperparameter search through nested cross-validation to their existing machine learning pipeline.

Dassault Systèmes — **Stockholm, Sweden**
Business Consultant — *July 2017 - Aug 2018*
- Spearheaded a project as one of the two leads in an international project team with people from Europe, Asia, and the US.
- Designed an airport workforce planning and optimization system for a large Nordic airline based on the client's requirements, where the improved planning made possible by the system significantly improved operational efficiency and employee satisfaction.

Dassault Systèmes — **Stockholm, Sweden**
Lead Developer — *Jan 2016 - July 2017*
- Led a three-person developer team that built an end-to-end logistics planning system for 30-50 users for the largest mining company in Sweden.
- Designed and implemented business logic and relational data models for a system used for planning a large part of the client's freight train operations, including workforce, train service, and maintenance planning.

Dassault Systèmes — **Stockholm, Sweden**
Developer — *Aug 2015 - Jan 2016*

Education

New York University — **New York**
Master of Science in Data Science — *2020*
- Selected coursework: Machine Learning | Big Data | Deep Learning | Natural Language Processing
- GPA: 3.97

KTH Royal Institute of Technology — **Stockholm, Sweden**
Master of Science in Engineering Physics — *2015*
- Track: Subatomic and Astrophysics
- Master's thesis: *Design and Optimisation of Detector Cells for the PoGOLite Polarimeter*

KTH Royal Institute of Technology — **Stockholm, Sweden**
Bachelor of Science in Engineering Physics — *2013*

Projects

Computer Vision Project - Spring 2020: Designed and implemented encoder-decoder models in PyTorch for predicting vehicle and road occupancy in a bird's eye view from 6 monocular images taken from a driving car. My team's threat scores for the tasks were 0.07 and 0.81 respectively, which both were the best scores out of 58 teams in NYU's Deep Learning class, taught by Yann LeCun.

Capstone Project - Fall 2019: Designed and implemented a novel meta-learning neural network model for classifying stellar stream stars based on a reference set of positive data points. The model was able to filter out >98% of background stars with almost perfect (>0.95) recall. The project was a collaboration with the Center for Computational Astrophysics at the Flatiron Institute.