JELIN RAPHAEL AKKARA

MASTERS IN PHYSICS OF DATA

CONTACT

Email: jelinraphaelakkara@gmail.com

Portfolio: https://jelinr.github.io/

SKILLS

Programming Languages

- **Proficient:** Python, R, SQL
- **Familiar:** C++

Frameworks and Libraries

- **Big Data Management:** Dask, Pyspark
- **Machine Learning:** TensorFlow, Keras, PyTorch, Scikit-Learn
- **Data Analysis:** Pandas, NumPy, SciPy, Seaborn, Matplotlib
- **Web Development:** HTML, CSS, Bootstrap

CERTIFICATES

2022 **Google Data Analytics Professional Certificate**

2022 **Google Foobar Challenge**

2021 **Einstein Toolkit Workshop on Numerical Relativity**

PROFILE

I am an aspiring machine learning professional currently pursuing a Masters in Physics of Data at the University of Padua, Italy. With a strong background in the natural sciences, I have honed my research and analytical skills towards specializing in Natural Language Processing and speech analysis. My experience includes working on projects involving Transformer models and applying statistical techniques to analyze data. I look forward to leverage my skills and knowledge in upcoming projects and opportunities.

PROJECTS

Time Series Analysis using Transformers

Trained a transformer model that predicts the occurrence of an event (magnetic reconnection during plasma evolution) from a heavily imbalanced dataset. The performance was compared against more traditional architectures (CNN, DNN) and the former proved to be a better and reliable model.

Fake News Classification using Multinomial Naive Bayes

Built an efficient text classification model that recognizes varying degrees of fake news using the multinomial naive bayes algorithm. Utilizing a parallel approach, the model was able to train and validate a large dataset (of 20800 rows, each row containing an average of 4544 words) in under 30 seconds.

Distributed Analysis of Big Data using Dask

Implemented anomaly detection on a large industrial dataset (~5GB) using Dask. Utilizing a distributed approach with the help of a virtual cluster of three worker nodes, we implemented the detection algorithm and obtained the correlated variables.

EDUCATION

Masters in Physics of Data — 2022 - 2024

University of Padua, Italy

GPA (Tentative) : 28.1 / 30

B.Tech in Engineering Physics — 2018 - 2022

National Institute of Technology, Calicut, India

GPA : 8.43 / 10