Alex Santonastaso

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Passionate and motivated computer scientist with a Masters Degree in Big Data Science with Machine Learning Systems. Having developed a strong foundation in data analysis, machine learning and statistical modeling through rigorous coursework and practical projects during my postgraduate studies, I am seeking a Data Scientist position to leverage my knowledge and problem-solving skills to solve real-world challenges.

PROFESSIONAL EXPERIENCE

Big Data Processing and Principles of Machine Learning Teaching Assistant Sep 2023 – present
Queen Mary University of London

- Conducted hands-on lab sessions for Big Data Science and Principles of Machine Learning modules, guiding students through practical applications and real-world scenarios.
- Developed and delivered clear, concise presentations to communicate complex concepts, ensuring student comprehension and engagement.
- Offered one-on-one assistance to students, providing valuable insights for individual projects and assignments.

SKILLS

Programming languages (Python, Java, C#, SQL, R),
Frameworks (Pytorch, Tensorflow, scikit-learn, NumPy, Pandas, matplotlib, Hadoop, Spark, MapReduce),
Developer Tools (Jupyter Notebook, Git, MS Office, Excel, Google Cloud Platform, AWS),
Languages (English - fluent, Italian - native)

PROJECTS

Comparative Analysis of automated facial emotion recognition with different levels of blur

- Conducted data preparation and pre-processing on the Aff-Wild2 dataset, including image duplicates removal, face detection, face alignment, data augmentation.
- Implemented facial emotion recognition using GoogLeNet Convolutional Neural Network architecture, achieving a 60% recognition accuracy on a testing dataset.
- Tested the model on blur augmented data, concluding that it proves to be robust even when classifying blurred faces.
- Trained a second model on artificially blurred data to improve performance when classifying blurred faces.

Ethereum Transaction Data Analysis

- Performed analysis on the raw data of Ethereum transactions, blocks, smart contracts by implementing a set of Hadoop and PySpark Map/Reduce operations such as top K, aggregation, moving window technique.
- Created barplots using matplotlib representing results: time analysis of the dataset, top ten smart contracts, top ten miners.

Audio Classification using Machine Learning techniques

- Extracted features such as tempo from raw music audio data.
- Developed a classifier based on machine learning techniques such as Support Vector Machine, Logistic Regression and Naive Bayes.

EDUCATION

MSc Big Data Science with Machine Learning Systems Jan 2022 – Jan 2023
Queen Mary University of London London, UK
Grade - Distinction

BSc Honours Computer Science Sep 2018 – Sep 2021
University of Westminster London, UK
Grade - First Class

Diploma of Higher Education Sep 2013 – Sep 2018
Liceo Scientifico Alessandro Manzoni Caserta, Italy