Alex Santonastaso

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WORK EXPERIENCE

HDS Consult srl — Caserta, Italy
Analyst — Apr 2023 – Apr 2024
- Analysed data across **10+ projects**, **solving complex problems** to enhance **business decision-making**
- Collaborated with **50+ clients** to deliver customised IT solutions, **improving efficiency by up to 20%**
- Utilised advanced analytical tools to **interpret trends**, providing **actionable insights**
- Developed **100+ detailed reports and presentations**, effectively communicating **findings to key stakeholders**
- Supported multiple projects simultaneously, consistently **delivering 95% of projects on time and within budget**
- Assisted in the design and implementation of IT systems, **affecting over 10,000 end-users** across various industries

Queen Mary University of London — London, UK
Lab Demonstrator — Oct 2023 – Dec 2023
- Guided students through different stages of **machine learning process**, from **data pre-processing** to **model evaluation**
- Provided one-on-one support to struggling students, helping them overcome difficulties and **deploy ML pipelines**
- Assisted students in understanding complex machine learning concepts by breaking down **theories into digestible chunks**

PROJECTS

Automated facial emotion recognition
- Implemented facial emotion recognition using **GoogLeNet Convolutional Neural Network** architecture, achieving a **60% recognition accuracy** on a deployment dataset
- Conducted data preparation and pre-processing of Aff-Wild2 dataset, including **face detection, face alignment, data augmentation, image duplicates removal**
- Added blur to the dataset and trained a second model, capable of **emotion recognition of blurred images**

Ethereum Blockchain Data Analysis
- Performed analysis on the **raw high volume data** of Ethereum blockchain by implementing a set of **Hadoop** and **PySpark** Map/Reduce operations such as aggregation, moving window technique
- Implemented data visualisation of the analysis **using matplotlib and Seaborn**

Audio Classification with Machine Learning
- Built Machine Learning pipeline for a binary classification task, that learns how to **predict a song label of a audio segment**
- Extracted features from raw .wav audio segments using **signal processing** functions obtained from the Librosa library
- Implemented **cross-validation** and grid search to furtherly improve model performance and reduce overfitting

EDUCATION

Queen Mary University of London — London, UK
Master of Science, **Distinction** — Jan 2022 - Jan 2023
Big Data Science with Machine Learning Systems
Relevant Coursework: Big Data Processing, Cloud Computing, Data Mining, Deep Learning, Machine Learning Deployment

University of Westminster — London, UK
Bachelor of Science, **First Class Honours** — Sep 2018 - Sep 2021
Computer Science

SKILLS

Programming: Python, Java, C#, SQL, R, Object Oriented Programming, Database Systems, Client Server Architecture
Frameworks: NumPy, Pandas, Pytorch, Tensorflow, Hadoop, Spark, matplotlib, scikit-learn
Developer Tools: Jupyter Notebook, VS Code, Git, MS Office, Google Cloud Platform, AWS