Angelo Di Gianvito

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EDUCATION

Master in **Data Science**, **Pompeu Fabra (Barcelona)**

(September 2023 - Present)

- Relevant courses: Computing for Data Science, Machine Learning, Computational Deep Learning, Deep Learning for Image Analysis, Reinforcement Learning, Advanced Methods in NLP, Text Mining, Big Data Management, Networks.
- Proficiency in:
 - NLP (LLMs, Transformers, RNNs and LSTMs, Knowledge Distillation, Fine Tuning, Prompt Engineering, BERT embeddings, W2V, tokenization), NLTK, SpaCy.
 - Computer Vision (CNNs, Object Location, Semantic Segmentation, U-NET, Siamese).
 - Reinforcement Learning (Markov DPs, deep Q networks, MonteCarlo, SARSA, Dynamic Programming).

42 Software Engineering School

(February 2023 - Present)

- Software Engineering Project based using C Programming Language
- Relevant topics: data structures, algorithms, memory management, error handling and debugging, concurrency and multithreading, version control systems, OOP and strict design patterns.
- Low-level programming concepts applied on complex applications (<u>Github</u> repository).

Bachelor in Economics and Business Economics, Maastricht University

(August 2018 - February 2022)

• Relevant courses: Quantitative Business, Quantitative Methods (I, II, III), Brand Management, Marketing Strategy and practice, Banking, Financial Markets.

WORK EXPERIENCE

Accenture Song/ Accenture – Design and Technology Intern

(June 2022 - January 2023)

- Product management of Web Platform and Mobile app for Public Administration digitization (Ministry of Economic and Finance) with 10,000 users.
- Bug detection and fixing, performance optimization, testing.
- Ensuring platform Live status meeting business needs and accessibility standards.
- Benchmarking, business modelling, and content management and creation.
- Working with teams of Frontend Developers and UI/UX Graphic Designers.
- Tools used: Jira, Confluence, Figma, AWS.

PROJECTS

NLP - <u>Financial News Sentiment Analysis on Twitter: Large Language models, Advanced augmentation techniques and Knowledge Distillation</u>

- Predicting sentiment in financial tweets, with a 3-label classification problem on Hugging face dataset.
- Simulating situation of limited data availability to compute augmentation techniques: Text Generation, Zero/Few Shot Learning, Word2Vec Similarities and other.
- Techniques and models used involve LLM fine Tuning, Knowledge Distillation, Zero Shot Learning, RNNs, BERT.
- Results obtained on the full dataset of 9000 observations optimized with augmentation techniques were close to state of the art (86.8% accuracy).

Deep Learning - Patient's Health Prediction using Neural Networks and Ensembles

- Advanced classification tasks using a comprehensive patient dataset to predict critical outcomes: length of stay of the
 patient and mortality forecasting.
- Key Objectives:

- Mortality Prediction: Utilizing K-Nearest Neighbors (KNN) and Support Vector Machines (SVM) algorithms to forecast patient mortality
- Length of Stay Prediction: Employing Neural Networks (Multilayer Perceptron MLP) and Ensemble methods (Stacking) to predict patient length of stay.

SKILLS

Technical: Python (Tensorflow, Keras, Pytorch, Numpy, Pandas, NLTK, Scikit-learn, BeautifulSoup, Selenium, etc.), C, R, SQL, Git, BigQuery, Postgres, MongoDB, DBMS, Neo4j, Cloud, Software Development, Matlab, Jupyter Notebook, Excel, Bash.

Soft: critical thinking and analysis, complex problem-solving, stress tolerance, flexibility, negotiation, active learning

Spoken Languages: English (Proficient), Italian (Native), Spanish (Fluent), French (Fluent).

Additional training:

Machine Learning – DeepLearning.ai (Coursera)

Google Data Science - R, SQL, BigQuery, Google Sheets (Coursera).