# **Angelo Di Gianvito**

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#### **EDUCATION**

#### Masters of Data Science, Pompeu Fabra University

(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).

#### Bachelors of 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.

## Software Engineering, 42 Roma Luiss Coding School

(February 2023 - Present)

- Software Engineering Project based school 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 on complex applications (Github repository).

#### A-level Diploma, Ashbourne Sixth Form College London

(September 2017- July 2018)

- One-year Fast track A-level Program (Condensing exams in a single year).
- Subjects: Mathematics, Economics and Italian.

# **WORK EXPERIENCE**

# Design and Technology Product Management (Intern) - Accenture (Song)

(June 2022 - January 2023)

- Spearheaded the product management of a web platform and mobile app dedicated to Public Administration digitization for the Ministry of Economic and Finance.
- Coordinated the end-to-end development of a full section of the platform achieving the platform live status, successfully making it accessible to 10,000 users.
- Strategically aligned platform development with business objectives and ensuring accessibility standards.
- Proactively identified and resolved bugs, significantly enhancing system performance and efficiency.
- Orchestrated rigorous testing procedures to ensure flawless functionality and user experience.
- Collaborated closely with cross-functional teams of Frontend Developers and UI/UX Graphic Designers to integrate impactful solutions and elevate overall project quality.
- Conducted benchmarking initiatives and optimized content management strategies, directly contributing to project scalability and impact.
- Leveraged advanced tools including Jira, Confluence, Figma, and AWS to streamline workflows and maximize project outcomes.

## **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 a HuggingFace 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 embeddings.
- 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 and Ensemble methods (Stacking) to predict patient length of stay.
- Results obtained show and 87% accuracy in Mortality forecasting of patients and an MSE of 4 for Length of stay prediction.

#### **SKILLS & ADDITIONAL INFORMATION**

Technical: Python (Tensorflow, Keras, Pytorch, Numpy, Pandas, NLTK, Scikit-learn, BeautifulSoup, Selenium, etc.), C, R, SQL, SPARK, 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, creativity, 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).