Daniele **Avolio**

AI & CS STUDENT · DATA SCIENTIST

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Education

Instituto Superior Técnico   *Lisbon, Portugal*

ERASMUS+ STUDENT   *Apr 2024 - Jul 2024*

- Advanced courses in Computer Science and Artificial Intelligence with a focus on Machine and Deep Learning.
- Expanded knowledge in state-of-the-art AI technologies and methodologies.
- Created a network of international contacts with students and professors.

Unical (University of Calabria)   *Cosenza, Italy*

M.S. IN COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE   *Sep. 2022 - Ongoing*

- Practical and theoretical courses in Computer Science and Artificial Intelligence with hands-on projects for real-world applications.
- Focus in Artificial Intelligence and Data Science, with a particular interest in Machine Learning and Deep Learning.

Unical (University of Calabria)   *Cosenza, Italy*

B.S. IN COMPUTER SCIENCE   *Sep. 2018 - Apr. 2022*

- Solid basis in Programming, Software Engineering, Web Development, and Artificial Intelligence.
- Thesis project: Fullstack web application for the management of a students social network.

Experience

IET s.r.l.   *Rende, Calabria*

FRONTEND DEVELOPER - STAGE   *May 2022 - Ago. 2022*

- Collaborated in designing and developing a custom Angular ngMaterial library to enhance UI components for internal company applications.
- Developed and maintained a scalable internal application using Angular and Tailwind CSS, creating custom survey applications for clients, being free from third-party services.
- Refactored and optimized legacy codebases, implementing new features ensuring scalability for future updates.

Projects

Immersivaudio

INSTITUTO SUPERIOR TECNICO

- Developed an audio generation application based on state-of-the-art deep learning models with Python.
- Enabled audio generation from videos/images and deployment to Hugging Face Spaces using Gradio.
- Tech: Python, PyTorch, Gradio, Hugging Face, Transformers.

USA School Shootings Analysis

M.S. UNICAL

- Built a data warehouse on USA school shootings using Kaggle data (1970-2022).
- Utilized Pentaho for ETL processes and Tableau for data visualization and analysis.
- Tech: Python, Pentaho, Tableau.

AI Generated Text Detection

M.S. UNICAL

- Developed deep learning models to detect AI-generated text in Kaggle competition using pre-trained models.
- Used BERT, CNNs, and Feedforward Neural Networks, achieving high validation accuracy ($\approx 95\%$).
- Tech: Python, Keras, TensorFlow, BERT.

Information Retrieval System

INSTITUTO SUPERIOR TECNICO

- Developed an Information Retrieval system for keyword extraction and text summarization for BBC News Dataset.
- Implemented TF-IDF, BM25, and sentence clustering for unsupervised and supervised text analysis.
- Tech: Python, NLTK, Gensim, Scikit-learn.

Skills

Data Science & ML	Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, TensorFlow, Keras, PyTorch, OpenCV, Gradio, NLTK, Spark, Hadoop
Programming	Python, JavaScript, TypeScript, Java, C++, SQL, Node.js, HTML5, CSS3, Svelte, Angular, TailwindCSS, Bootstrap, Git, Firebase, Vercel, Hugging Face, Penthao, Tableau
Soft Skills	Problem Solving, Teamwork, Communication, Time Management, Adaptability, Creativity
Languages	Italian(Native), English(Fluent)

Honors & Awards

2023	**Best Master Student**, M.S. in Computer Science and Artificial Intelligence	*Unical*