Leonardo Emili

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EDUCATION

Erasmus+, Informatics	Vienna, Austria
Vienna University of Technology	*Sep 2021 – Feb 2022*
Master of Science in Computer Science	Rome, Italy
Sapienza University of Rome - 110/110 summa cum laude	*Sep 2020 – July 2022*
Bachelor of Science in Computer Science	Rome, Italy
Sapienza University of Rome - 110/110 summa cum laude	*Sep 2017 – July 2020*

EXPERIENCE

Machine Learning Research Engineer — July 2024 – Now
Apple Inc. — *Aachen, Germany*
- Doing Machine Translation as part of the Core Modeling team.
- Researching methods to improve quality of production MT systems.

Deep Learning Scientist — Nov 2022 – May 2024
Translated — *Rome, Italy*
- Lead effort in incorporating context-awareness, boosting accuracy of document-level MT.
- Created the production pipeline for large-scale multilingual models, used in every training.
- Early R&D activities and core contributor in the development of Lara models.

AI/ML Research Intern — May 2022 – Sep 2022
Apple Inc. — *Aachen, Germany*
- Contributed to internal research projects in the Siri LM team (SaLT).
- Research and developed data-driven compression pipelines for Language Models. [1]

AWARDS

Honours Program — March 2019
Honours Program for selected students, enriching field knowledge alongside regular coursework.

SELECTED PROJECTS

Aspect-Based Sentiment Analysis
Multitask learning approach using contextualized word embeddings and Conditional Random Field (CRF).

Stock Price Forecasting
Distributed stock price forecasting system to predict S&P 500 stock prices.

RESTaurant-reservation
Microservice-based restaurant reservation system, built using Docker Compose.

REFERENCES

1. **Leonardo Emili**, Thiago Fraga-Silva, Ernest Pusateri, Markuss Nußbaum-Thom, and Youssef Oualil. *Neural Language Model Pruning for Automatic Speech Recognition* (2023).

TECHNICAL SKILLS

Programming Languages: Python, Java, Dart, C, C++, Shell, JavaScript, TypeScript, SQL
Frameworks: PyTorch, PyTorch Lightning, PEFT, Transformers, Tensorflow 1, PySpark, Keras
Developer Tools: Git, Docker, GCP, AWS, LaTeX

SELECTED COURSES

Deep Learning (30L/30), **Natural Language Processing** (30L/30), **Distributed Systems** (30/30)

LANGUAGES

Italian (native), **English** (C1 level), **Spanish** (advanced), **German** (intermediate), **French** (intermediate)