

LORENZO PAPPONE

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EDUCATION

Saint Louis University, St. Louis, MO

PhD Student in Computer Science

Department of Computer Science

Aug 2021 - current

GPA 3.9/4.0

University of Naples Federico II, Naples, Italy

B.S & M.S in Computer Engineering

Department of Electrical Engineering and Information Technology

Mar 2021

GPA 3.9/4.0

PERSONAL SKILLS AND COMPETENCES

Language: Italian (native), English (fluent)

Programming: Python, Java, C/C++, Javascript, Scala, Go

Other Tools: git, MATLAB, Spark, Hadoop, Flask, Tensorflow, Keras, MySQL, PostgreSQL

WORK EXPERIENCE

Saint Louis University, St. Louis, MO, USA

Aug 2021 - present

· ***Graduate Research Assistant***

- Conduct research on applying Reinforcement Learning techniques for Traffic Engineering optimization (Python, R).

KTH Royal Institute of Technology, Stockholm, Sweden

May 2022 - Aug 2022

· ***Visiting Researcher***

- Developed deep learning-based anomaly detection for congestion control algorithms to enhance network performance and user experience.

Almaviva DigitalTec, Naples, Italy

Mar 2021 - Ago 2021

· ***Data Engineer***

- Design and development of a back-end Spark job for a big data management platform. The back-end job supports SQL-like operations over geo-spatial data (Scala, SQL).

University of Naples Federico II, Naples, Italy

Oct 2020 - Mar 2021

· ***Graduate Research Assistant***

- Conduct research on applying deep learning models to predict network traffic generated from mobile applications. The project was in collaboration with 10+ researchers from academia and from Huawei.

RELEVANT COURSEWORKS AND PROJECTS

Internet Performance Analysis

- Conduct research for mobile-network traffic classification using a distributed deep learning framework (Horovod) on a Spark cluster (Python).

Machine Learning

- Design and implementation of a predictor for a solar panel energy production forecasting on the basis of weather conditions, training data using Random Forest algorithm (Python).

PUBLICATIONS

- [1] **L. Pappone**, F. Cerasuolo, V. Persico, D. Ciunzio, A. Pescapé, and F. Esposito, “Prediction of mobile-app network-video-traffic aggregates using multi-task deep learning,” in *2022 IFIP Networking Conference (IFIP Networking)*, 2022, pp. 1–6. DOI: [10.23919/IFIPNetworking55013.2022.9829800](https://doi.org/10.23919/IFIPNetworking55013.2022.9829800).
- [2] S. Bhavanasi, **L. Pappone**, and F. Esposito, “Routing with graph convolutional networks and multi-agent deep reinforcement learning,” in *2022 NFV-SDN*, 2022.
- [3] R. Amoroso, **L. Pappone**, and F. Esposito, “A federated learning approach to traffic matrix estimation using super-resolution techniques,” in *2023 CCNC*, 2023.