

Francesco Ferrini

PhD Student in Machine Learning



francescoferrini



ffrancesco



francescoferrini1997@gmail.com



+393489981820

PROJECTS

LEARNING METAPATH GNN | PYTHON

2022- Current

- Several multi-relational types of graph neural networks (GNNs) have been introduced. One of the most representative is the R-GCN (Relational Graph Convolutional Network). Instead of using this already existing framework, the idea of this project is to develop a meta-path GNN (MP-GNN) where each layer of the neural network is associated with a different relation type.

RASA BOT | PYTHON, MYSQL

2022

- Development of a chatbot in Rasa X framework able to help customers in completing an order on an online e-commerce. Through the bot, customers are also able to create an account, visualize products or ask more general questions.
GitHub link

GNN FOR GRAPH CLASSIFICATION | PYTHON

2022

- Development of a Graph Neural Network able to classify graphs corresponding to different labels. Each graph's label is based on a particular social context.
GitHub link

HEALTH RECOMMENDATION SYSTEM | PYTHON

2022

- Development of a Recommendation System, in the Health Domain, which helps doctors in proposing the next therapy for a patient with a particular condition. The suggestion is based on a dataset of other patients, conditions and therapies. Algorithm created using the collaborative filtering method.
GitHub link

ATTRIBUTE RECOGNITION AND RE-IDENTIFICATION | PYTHON

2021

- Development of a Neural Network, in a supervised setting, able to predict different types of attributes on new images from dataset Market1501 and to identify the same person in different images.
GitHub link

TWO STEP POLARITY CLASSIFICATION | PYTHON

2021

- Development of a system able to perform polarity classification of reviews after the elimination of sentences considered objective.
GitHub link

PUBLICATIONS

ENERGY-EFFICIENT INFERENCE ON THE EDGE EXPLOITING TINYML CAPABILITIES FOR UAVS 2021

- In this paper, we propose a practical solution to the problem of providing UAVs with advanced decision-making capabilities in an energy-effective way that exploits deep learning on the edge

EDUCATION

UNIVERSITY OF TRENTO

PHD IN MACHINE LEARNING

LANGUAGE: ENGLISH

Via Calepina, 14, 38122 Trento TN

Nov 2022 - Current

AALBORG UNIVERSITY

MSC INTERNSHIP AND THESIS

LANGUAGE: ENGLISH

Selma Lagerløfs Vej 300, Aalborg, Denmark

Jun 2022 - September 2022

UNIVERSITY OF TRENTO

MSC IN ARTIFICIAL INTELLIGENCE SYSTEMS

LANGUAGE: ENGLISH

Via Calepina, 14, 38122 Trento TN

Sep 2020 - Oct 2022

UNIVERSITY OF VERONA

BSC IN COMPUTER SCIENCE

LANGUAGE: ITALIAN

Via S. Francesco, 22, 37129 Verona VR, Italy

Sep 2016 - Mar 2020

SKILLS

PROGRAMMING

Proficient:

Python • PDDL • SQL • C •

Experienced:

Shell • \LaTeX • Assembly •

Familiar:

Java • C++ •

LIBRARIES/Frameworks

Pytorch • Pytorch Geometric • Dgl •
Numpy • Spacy •
Sklarn • opencv • Matplotlib •

TOOLS/PLATFORMS

Git • VSCode • Pycharm • Anaconda • Docker