# RAFFAELE POJER

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#### **EDUCATION**

### PhD in Computer Science (Ongoing)

2023 - Present

Aalborg University, Denmark

Enrolled as a PhD student in Computer Science at Aalborg University.

# Master's Degree in Artificial Intelligence Systems

2020 - 2023

University of Trento, Italy

Relevant Coursework: Machine Learning, Deep Learning, Advanced Topics in Machine Learning and Optimization, Fundamentals of Artificial Intelligence, Advanced Computer Vision, Bio-Inspired Artificial Intelligence, Signal Image and Video (SIV).

### Bachelor's Degree in Computer Science

2017 - 2020

University of Trento, Italy

Relevant Coursework: Algorithms and Data Structure, Mathematical Foundation of Computer Science, Calculus, Geometry and Linear Algebra, Formal languages and compilers, Operating Systems.

### High School Diploma, ICT specialization

2012 - 2017

ITT M. Buonarroti, Trento, Italy

#### WORK EXPERIENCE

# Internship at Aalborg University

Sep 2022 - Dec 2022

 $A alborg\ University,\ Denmark$ 

• Curricular internship for thesis research. The topic is the combination of Relational Bayesian Networks (RBNs) and Graph Neural Networks (GNNs): a new neuro-symbolic approach for learning and reasoning about graph data.

Supervisors: Professors Manfred Jaeger and Andrea Passerini.

#### **SKILLS**

Computer LanguagesPython, Java, C, C++, JavaScriptPython librariesNumpy, Pandas, Sklearn, ScipyMachine learning frameworksPyTorch, PyTorch-GeometricOSLinux, MacOS, Windows

### PROJECTS

**Botch.** Bachelor thesis project. Mod of Scratch 3.0 to teach kids rudimentary basics of evolutionary computing. (Try it here)

Variable Name Prediction. Predicting Python variable names with Code-Transformer. A program synthesis project for the course of Advanced Topics in Machine Learning and Optimization.

Language Models. Written different flavours of RNN architectures from scratch (GRU and LSTM). A NLU course project.

Unsupervised domain adaptation in Computer Visions. A team project, where we develop a model based on GANs and cycle-consistent losses for an unsupervised domain-adaptation task.

Automatic Emergency Sign Detection. For the course of Signal, Image and Video: developed a classifier that recognize from smartphone photos, emergency sign without the usage of any deep-learning algorithm.

# **VOLUNTEERING**

• First aid volunteer, Val di Cembra (Italy)

Active volunteer from a first aid health association, Stella Bianca ONLUS. One night shift a week with team of coworkers in an ambulance. (stellabianca.eu)

• CoderDojo Mentor, Val di Cembra (Italy)

Co-founder and mentor of the CoderDojo Val di Cembra branch. CoderDojo is a global volunteer-led community of free programming workshop for young people between the age of 7 and 17. (coderdojocembra.it)

#### CREATIVE WORKS

• Theater, Altavalle (Italy)

Actor, sound and light technician of the Libero Teatro di Grumes philodrama.

• Photographer, Altavalle (Italy)

Photographer of the Contavalle projects, hosted by Punto Doc.

2018 - Current

2019

#### HONORS AND AWARDS

• Premio Mario Roat - Co.F.As., Trento (Italy)
Miglior giovane interprete di un testo dialettale. Targa "Lino Lucchi".

(best young performer of a dialect text)