

# Pietro Sillano

MSc. PHYSICS STUDENT

Turin, Italy

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## Education

### MSc. in Physics of Complex Systems

UNIVERSITY OF TURIN

GPA = 4.0

Turin, Italy

Oct. 2020 - April 2023

### BSc. in Physics Engineering

POLYTECHNIC OF TURIN

Bachelor Thesis: "Modelling Competing Endogenous RNA Networks" with A. Pagnani

Turin, Italy

Oct. 2017 - Oct. 2020

## Skills

### Proficiency

- Python: Numpy, Scipy, Pandas, Matplotlib
- Machine Learning and Deep Learning: Scikit-learn, Keras, PyTorch

### Basic proficiency

- C, Julia, Fortran

### Operative knowledge

- Linux, git, Latex, Slurm

### Languages

- Italian: Native
- English: IELTS Academic Test - 6.5 (2018)

## Experience

### Visiting Research Student

SISSA

I worked on my Master's thesis at SISSA with A. Rosa on polymer models of nuclear chromatin

Trieste, Italy

October 2022 - April 2023

### Visiting Research Student

NICOLAUS COPERNICUS UNIVERSITY

Collaborated with History Department to design a modern approach of analyzing Latin text exploiting **Natural Language Processing** methods (based on **BERT**).

Torun, Poland

July 2021

### Member

MACHINE LEARNING JOURNAL CLUB

- It's a **student organization** which aims to explore the most recent applications of AI, along with the creation of open source content
- I work in designing and developing several **Machine Learning** projects involving Medical AI and Brain Computer Interfaces
- Co-supervising a project on **Neurofeedback** based on OpenBCI devices. In charge of the EEG data acquisition and data analysis.

Turin, Italy

2021 - Present

### Teaching Assistant

UNIVERSITY OF TURIN

- Physics laboratory II - 50 hours
- Introduction to scientific programming - 50 hours
- Preparation and evaluation of introductory Math exams - 50 hours

Turin, Italy

2021 - Present

## Relevant Projects

### r/place Network Analysis 🔄

NETWORK ANALYSIS AND VISUALIZATION OF R/PLACE EVENT

- Application and testing of different community detection algorithms
- Analysis and visualization of large networks data

Summer 2022

### Sindy Pendulum 🔄

RECOVER MINIMAL PHYSICS DYNAMICAL MODELS FROM HIGH DIMENSIONAL DATA

- Identification of **parsimonious dynamical models** from high dimensional data with Autoencoder neural network
- Improved my knowledge on code a neural network architecture with PyTorch library

Fall 2021