

Andrea Panno

Bioengineering student (B.Sc.)
Pavia, Lombardy, Italy

+39 3334302374
andrea.panno@protonmail.ch
badcortex.github.io

Research Interests

Optimization algorithms for Machine Learning, Deep Learning on graphs, Discrete Optimal Transport, Binarized Neural Networks, Deep learning for embedded systems.

Education

- **University of Milano Bicocca, Milan, Italy** Sept. 2023 - Present
M.Sc. in Artificial Intelligence for science and technology
- **University of Pavia, Pavia, Italy** Oct. 2017 - Present
B.Sc. in Bioengineering Overall GPA: 24/30
- **I.I.S. "G. Marconi", Latina, Italy** Sept. 2012 - July 2017
High School Diploma Overall score: 100/100 cum laude

Teaching Experience

- **Fundamentals of Informatics, Bioengineering** University of Pavia
Academic tutor March 2021 - July 2021
 - Led weekly lectures about the C programming language both in campus and remotely.
 - Remote assistance for students using Slack and other software.

Projects

- **Development of an ILP model for RNA folding** University of Pavia
Optimization and Algorithms for Data Science Exam Sept 2020
 - The aim of the project was to develop a mathematical model for RNA folding using Integer Linear Programming (ILP). The simple RNA folding problem can be summarized in the following words: "Given the nucleotide sequence S of a RNA molecule, find a nested pairing that pairs the maximum number of nucleotides, compared to any other nested pairing". The model was implemented in Python using the Pyomo library.
- **Handy: a tactile pressure sensor glove** University of Pavia
Biomedical Instrumentation Exam (Group Project) Oct. 2019 - Jan. 2020
 - The aim of the project was to design a smart glove equipped with FSR (Force Sensing Resistor) sensors for measuring the force applied when gripping an object.
- **Raspberry Pi Self Driving Car** I.I.S. "G. Marconi", Latina
High School final project July 2017
 - A self driving car equipped with Raspberry Pi 2, Raspberry Pi Camera and proximity sensors. Autonomous driving was made possible by a neural network (TensorFlow) that takes as inputs both images and data from sensors.

Certifications

Computational modeling in Julia with Applications to the COVID-19 Pandemic, Julia	Jan. 2022
Deep Learning with MATLAB, MathWorks	Oct. 2021
Foundations: Data, Data, Everywhere - Google Data Analytics, Coursera	Oct. 2021
Deep Learning OnRamp, MathWorks	Sept. 2021
Optimization OnRamp, MathWorks	Aug. 2021
Machine learning in Python with scikit-learn, Inria	July 2021
B2 First Certificate in English, Cambridge English	May 2016

Awards, Grants & Honours

Entrance scholarship, University of Pavia (Merit)	2017
Talented student prize, I.I.S. "G. Marconi" (Merit)	2017

Participations to Conferences & Workshops

AI in Healthcare (Winter School), University of Pavia	Dec. 2021
Introduction to Machine Learning, Almo Collegio Borromeo, Pavia	Nov/Dec. 2021
Spring School on "MINLPs and Bilevel Problems", Trier University	June 2021

Skills

- Programming and Markup Languages
 - **Advanced:** Python, MATLAB, C, C++, SQL
 - **Intermediate:** Julia, Java, \LaTeX
- Software
 - **Advanced:** MS Access, MS Excel, MS Word, MS Powerpoint
 - **Intermediate:** LabView
- Libraries and frameworks
 - Numpy, Scikit-learn, Pandas, PyTorch, Tensorflow, Matplotlib, Pyomo, Flux.jl
- Hobbies
 - Cooking, mountain biking & running