

WHO AM I

I am leveraging my Master's program in Physics of Data to combine my background in physics and astronomy with modern computing and data-driven techniques. I enjoy coding and building tools that automate analysis, explore data, and optimize performances. Lately, I've been expanding my skills in Linux system management and network security, driven by curiosity about how systems communicate and how to protect them. I'm motivated to keep learning and to apply my growing technical foundation to real-world problems that connect science, data and can help people.

SKILLS

Python - R - MySQL - Bash - ML/DL: Pytorch, Optuna, ScikitLearn, Keras - Distributes systems: Dask, NFS, Kafka, Apache Spark - Linux - C, Cuda-C -

PROJECTS

Projects

- Hierarchical mergers of black holes [**Data visualization + Random Forest**]
- Notes of General Relativity [**Vim + Latex**]
- Miscellaneous DL and ML algos [**ScikitLearn+Keras, Restricted Boltzmann machines, XGBoost, Clustering**]
- Bayesian networks [**R, Simulated Annealing, K2 algorithm**]
- GalaxyClassifier-CNN [**Pytorch, Optuna**]
- Cord19 Analysis [**Dask, Cluster management, SSH, NFS, MapReduce, NLP: word2vec + Cosine Similarity**][Large scale text analysis using Dask clusters and secure SSH deployment]
- Carrom Tournament Bot [**Telegram Bot API, Docker, MySQL**][Full stack bot with MySQL + Docker, emphasizing API management]

EDUCATION

University of Padua

Student of Physics of Data

2024-

University of Padua

Bachelor in Astronomy

2019-2024

- Thesis: Formazione di sistemi binari buco nero-stella: il caso di Gaia BH1 e Gaia BH2. Supervisor: Prof. Giuliano Iorio. Co-supervisor: Prof.ssa Sara Rastello.

High Energy Astrophysics International Data Camp

INTERESTS

Julia - Computer science - Building automation scripts and backend tools - Sewing clothes and accessories

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