DOMINGO RANIERI

CONTACTS

📍 Mattinata (FG), Italy
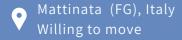Willing to move

✉ domiran98@gmail.com

⊙ domingoran (github.com)

🌐 domingoranieri.com

DATE OF BIRTH

24/01/1998

TECHNICAL SKILLS

Programming languages:
C++, Python, SQL, Solidity,
Haskell, Bash.

Framework: NumPy, Pandas,
Matplotlib, Scikit-learn,
TensorFlow, Keras, Pytorch,
D-Wave.

Web development: HTML,
CSS, Javascript, ReactJS,
Flutter Web.

Other: Git, , Docker, Node JS,
AWS, Excell, Google sheets.

Operating system: Windows,
Linux

TRANSVERSAL SKILLS

Complex problem solver

Team worker

Fast learner

Organizational skill

Adaptation and flexibility

LANGUAGES

English: B2

Italian: Mother tongue

SUMMARY

Master's student in Physics with a passion for Artificial Intelligence. As a Data Scientist, I am skilled in data analysis and statistical modelling. Having more than three years of experience working with Python, I am adept at building predictive models and visualizing data. I have experience with machine learning algorithms such as linear regression, classification and clustering. Additionally, I have experience with data visualization tools such as Matplotlib and Tableau, with strong problem-solving skills and the ability to work independently or as part of a team. Adept at communicating insights to technical and non-technical stakeholders. I am excited to contribute to a data-driven organization as a Data Scientist.

EDUCATION

University of Bologna, Sep 2020-Dec 2022
Master's degree in theoretical physics.

- Graduated with 110/110 with honors.
  Average degree: 29,9/30
- Thesis title: Simulation of a neuromuscular control using a quantum computer.
  Supervisor: Prof. Elisa Ercolessi
  Co-supervisor: Dr. Giorgio Davico,
  Dr. Claudio Massimiliano Sanavio
- In the thesis I used D-Wave technologies to perform quantum annealing and find the best solution to an optimization problem of neuromuscolar control.

University of Bologna, Sep 2017-Jul 2020
Bachelor in physics.

- Graduated with 110/110 with honors.
  Average degree: 29,7/30
- Thesis title: Fractal Universe model and Cosmic Acceleration.
  Supervisor: Prof. Alexandr Kamenchtchik
- In the thesis I studied a model of the Universe with a fractal distribution of matter. The main objective was to express the cosmic acceleration as a function of this distribution, avoiding the introduction of dark energy.

COURSES AND CERTIFICATIONS

- **Coursera,** Jun 2023
  Introduction to Machine Learning on AWS.

- **Coursera,** May 2023
  Getting Started with Data Analytics on AWS.

- **Coursera,** Jan-Feb 2023
  Google Data Analytics Professional Certificate.

- **University of Bologna**, Jul 2022
  Summer school: Quantum Sensing,
  Information processing and Computing.

- **Santa Fe Institute,** Sep 2020
  Complexity explorer.

PROJECTS

- BREST CANCER CLASSIFICATION: After performing necessary preprocessing steps, a comprehensive analysis was conducted using GridSearch and cross-validation techniques to study the performance of various models (Random Forest, K-NN, and Logistic Regression). Then, a Neural Network was implemented to perform the same classification task, allowing for a comparative evaluation of the results. (Numpy, Pandas, Sklearn, Tensorflow, Keras, Matplotlib)

- AUDIO MNIST CLASSIFICATION USING CNN: to classify MNIST audio clips, a Convolutional Neural Network (CNN) was employed. Initially, the spectrogram of each audio file was computed, and these were subsequently utilized to train the model.Then the model's performance was evaluated, resulting in an accuracy of 95%. (Numpy, Pandas, Librosa, Tensorflow, Keras, Matplotlib)

- BLOCKCHAIN: NON-FUNGIBLE ROYALTY TOKENS: in collaboration with a colleague, we have established a novel standard, ERC1190, for effectively managing document royalties on the Ethereum blockchain. We have successfully implemented a decentralized system utilizing IPFS for the storage and management of data. Made for the course "Blockchain and Cryptocurrencies", University of Bologna, A.Y. 2021/2022. (Solidity, Infura, IPFS, FlutterWeb, Node Js)

- QUANTUM SOLVER: the module I developed for my thesis work solves a specific class of optimization problems utilizing D-Wave quantum computers. Currently, we are actively employing this module as part of an ongoing extension to my thesis research. (D-Wave, Numpy, Pandas, Matplotlib)