



Samuele Lipani

Physicist, Data scientist

- 29 January, 1999
- +39 3314241373
- <https://www.linkedin.com/in/samuele-lipani-03656a229/>
- <https://github.com/samuelelipani>
- samuelelipani@gmail.com

About Me

I was born in a small town in Sicily and as a kid i was interested in natural phenomena and how the world around me worked. At the present time i am really into reading, art, animation and Data science.

Languages

- Italian ● ● ● ● ● ●
- English ● ● ● ● ● ●
- French ● ● ● ● ● ●

Technical skills

- Python ● ● ● ● ● ●
- Numpy ● ● ● ● ● ●
- Pandas ● ● ● ● ● ●
- Scikit-learn ● ● ● ● ● ●
- R ● ● ● ● ● ●
- Dplyr ● ● ● ● ● ●
- Tidyr ● ● ● ● ● ●
- JAGS ● ● ● ● ● ●
- Matlab ● ● ● ● ● ●
- C ● ● ● ● ● ●
- Data Visualization ● ● ● ● ● ●
- Machine Learning ● ● ● ● ● ●
- Pytorch ● ● ● ● ● ●
- Keras ● ● ● ● ● ●

Education

- 2022 **MSc Internship** ICTP, University of Trieste
focus: quantitative life science and ecology for population dynamics
- 2020 – 2022 **Master studies in Physics of Data** University of Padova
Physics of Data consists in interpreting natural phenomena whose complexity requires the collection, management and analysis of large amounts of data and also how to develop methods and techniques for such analysis
- 2017 – 2020 **Bachelor Studies in Physics** University of Catania
Bachelor studies in physics and astronomy achieved with 110L
Thesis: it considers the phenomenon of synchronization by analyzing its physical characteristics and a simple model named after Kuramoto implemented in MATLAB
- 2012 – 2017 **High school diploma** Liceo Scientifico A.Volta, Caltanissetta
Scientific diploma achieved with 100L

Main projects

- Food webs** Study of food webs models and their efficacy in predicting real marine food webs, **Python**
- Life data epidemiology** Estimation of incubation period plus reporting time based on COVID-19 mobility and new cases data in Italy, **Python**
- Life data epidemiology** Estimation of the lag in the application of restrictions in Italian regions, **Python**
- Bayesian inference** Inference of COVID-19 vaccines effectiveness and uncertainty using Bayesian methods, **R**
- Data analysis** Reconstruction of tracks of particles measured by fast track detectors with parallel processing, **Python**

Relevant Master courses and interests

Some courses i attended that contributed to my education are Machine Learning, Neural networks and deep learning, Information theory and bayesian inference, Quantitative life science, Life data epidemiology. I am mainly interested in quantitative life sciences, complex systems and i can define myself as an enthusiast physicist, data scientist and data analyst.

Extra-Curricular Activities

- Physics teacher** Teacher in the preparation course course for the EOES physics competition
- Tutor** Senior tutor in the courses of the EOES Summer School of Physics organized by the AIF section of Caltanissetta - Physics Laboratory
- Academic tutor** MSc student tutor for students attending the first years of physics bachelor degree in UniPd for the calculus class

Key words

- Social skills
- Communication
- Team work
- Machine learning
- Deep learning
- Data science
- Data analysis
- Physics of Data
- Statistics
- Complex systems
- Ecology