



# Luca Giuliani

Data & Computer Scientist

24 years old

Bologna, Italy

He/Him

## Hard Skills

Software Development Advan.

Machine Learning Advan.

Logistics & Optimization Interm.

Multi-Agent Simulation Interm.

## Soft Skills

Organizational Skills

Creativity

Problem Solving

Teamwork

## Language Skills

Italian Native

English C1 Level

## Work Experience

### Academic Internship

02/2019 - 05/2019

Alma Mater Studiorum - University of Bologna

- Development of a component for the Alchemist simulator with Kotlin
- Employment of the engine to simulate biochemical experiments

### Professional Stage

06/2015 - 07/2015

Loccioni Group, Angeli di Rosora (AN)

- Development of a web application with AngularJS

## Education

### Computer Science and Engineering (PhD)

11/2021 - ongoing

Alma Mater Studiorum - University of Bologna

- ⇒ Research Project: Integrated Methodologies for Optimization, Constraint Reasoning, and Machine Learning

### Artificial Intelligence (M.Sc.)

09/2019 - 07/2021

110/110 with honours

Alma Mater Studiorum - University of Bologna

- ⇒ Thesis: Extending the Moving Targets Method for Injecting Constraints in Machine Learning

### Computer Science and Engineering (B.Sc.)

09/2016 - 10/2019

110/110 with honours

Alma Mater Studiorum - University of Bologna

- ⇒ Thesis: Design and Implementation of a Domain-Specific Language for the Definition of Gene Regulatory Networks

### High School, 100/100

09/2011 - 07/2016

Liceo Scientifico L. Da Vinci, Jesi (AN)

## Relevant Projects

### Moving Targets

*Software Development & Machine Learning*

An open source python library for Constrained Machine Learning based on the 'Moving Targets' algorithm.

### Another Genetic Circuit Transcriber

*Software Development & Programming*

A Kotlin-based Domain-specific Language for writing Genetic Circuits with a high-level human-readable syntax.

### Epidemic Model Learning

*Machine Learning & Optimization*

Prescriptive model, based on a predictive surrogate trained on simulated data, aimed at taking the best decisions to fight the COVID-19 pandemic.

## Programming Skills

#### Python

- Scikit Learn
- Tensorflow
- PyTorch

#### Object-oriented

- Kotlin
- Java
- C++

#### Optimization

- CPLEX
- Gurobi
- Optuna

## Contacts

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