



Details

blmttt@gmail.com

Date / Place of Birth

08/07/1998, Rome (IT)

Links

Personal Site

<https://tratteo.github.io>

Portfolio

<https://github.com/tratteo>

Skills

Problem Solving

Software Development

Deep Learning

Quantum Information

Quantum Computation

Internet of Things

Videogames Development

Languages

Italian (mother tongue)

English (professional level)

Hobbies

Skiing

Fitness

Videogames Development

Martial Arts

Matteo Beltrame



Profile

Very enthusiastic, I want to contribute to the scientific innovation.

I give my best performance when working on projects that actually bring some concrete value to society and humanity in general, specifically in fields such as sustainability and pure scientific research. I like to work in teams in order to increase the research output and to share new concepts and ideas.

Fields in which I have particular interest:

- Quantum Information and Quantum Computation
- Machine Learning
- Performance Engineering
- Parallel Systems
- Theoretical Computer Science



Education

Computer Engineering Bachelor's degree, University of Rome, "La Sapienza"

September 2017 – October 2020

Information engineering path, specific subjects:

- Mathematical analysis, complex analysis, physics
- Computer architectures
- Software development and organization
- Parallel systems
- Systems control and design
- Electronics
- Databases
- Telecommunications
- Theoretical computer science

Thesis (in progress):

Improving Neuroevolution of Augmenting Topologies for feed forward Neural Networks through parameters dynamization

An implementation of the NEAT algorithm (Metaheuristic Genetic Algorithm) for feed forward Neural Networks and its improvement through the dynamization of usually static parameters, such as mutation rate, crossover rate, species sharing threshold and fitness function.

Applied Science, Ettore Majorana High School

September 2012 – July 2017

Grade: 100 / 100

Classes focusing on computer technology, mathematics, physics and applied science in general.



Courses

Quantum Mechanics extra course, Department of Physics, University of Rome, "La Sapienza"

September 2019 – January 2020



Certifications

- First Certificate, Cambridge Assessment English**
January 2015 - July 2015
- Trainer certificate, "Game Development with Unity", High School Ettore Majorana**
April 2017



Projects

- Gravitor**
December 2018 - August 2019
Language: C# Unity
An indie Android game, designed and developed individually, implementing real physical laws such as gravitation and general relativity.
- Genetic Neural Networks**
January 2020 - present
Language: C# Unity
Bachelor's Thesis project.
- IoT Android App**
February 2018 - present
Language: Java
Android app interface for the IoT home automation project.
- IoT Home Server Hub**
February 2018 - present
Language: Java
IoT multithreaded server for home automation project. Representing the central hub that redirects all the client requests to the designated devices.
- IoT Raspberry Server**
February 2018 - present
Language: C++
Raspberry Pi server used to handle LED and temperature sensors.
- Unity Library**
January 2020 - present
A Unity library developed to facilitate some Unity tasks.
Used in Gravitor and Genetic Neural Networks projects.