Matteo Beltrame

Details

bltmtt@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

Profile

Very passionate and excitable, willing to contribute to the scientific innovation.

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

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
- Highly 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

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.