

OMAR YOUNIS

EDUCATION

Visiting Student, EPFL

January 2022 - July 2022

Work on improvements for PowerSGD with the supervision of professor Thijs Vogels.

Master Degree in Artificial Intelligence (CS)

September 2020

Alma Mater Studiorum - University of Bologna, Italy

29.5/30

Featured courses: Python, Deep Learning, Machine Learning, Computer Vision, Natural Language Processing, Scala, Optimization, Reinforcement Learning, Complex Systems, AI in Industry.

Projects: SegNet for food segmentation (TensorFlow), discrete optimization for VLSI (MiniZinc, Z3Py), planning for NAO robot (Python), Set Covering Machine implementation (Python), POS tagging (PyTorch), fact checking with FEVER dataset (PyTorch).

Bachelor's Degree in Computer Engineering

September 2017 - September 2020

University of Brescia, Italy

107/110

Projects: online othello game with GUI, computer player, and encryption (Java). Domotic system (Java).

Awards: partial fees refund due to honours.

Thesis: GEM-balls (a classifier with error bounds) - implementation, evaluation, and study of variants.

EXTRACURRICULAR ACTIVITIES

Online summer school in AI, Nankai University, China

June 2021 for 2 weeks

Main topics: Robotics, Computer Vision, AI for Medical Applications.

Projects: mobile app to search images in the gallery using pretrained MobileNetV3 + SSD (Flutter), product recognition on store shelves using SIFT (Python with OpenCV).

Summer school in Deep Learning, Neuromatch Academy

August 2021 for 3 weeks

Main topics: PyTorch, Reinforcement Learning, from Deep Learning foundations to cutting edge research topics like Continual Learning and Meta-Learning.

Project: Spiking Neural Network with Hebbian plasticity to cluster MNIST (Python with BindsNET).

Other courses

Stanford, C. Finn - Multi-Task and Meta-Learning

MIT – Statistical Learning Theory

DeepMind x UCL – Reinforcement Learning 2021

NYU – Deep Learning Spring 2021

Pieter Abbeel - Foundations of Deep Reinforcement Learning

NPTEL – Probability Foundations

PROJECTS & CONTRIBUTIONS

OpenAI's Gym: contributor, manager and reviewer. I am the author of the new render API.

PyTorch: contribution for PowerSGD in distributed module (made it ~5x faster).

SciPy's cKDTree [remove method](#) implementation (C++); make remove operation ~100x faster.

[WatchForever](#) is a marketplace for watches. I have made a [Telegram bot](#) (Java) used by more than 10k users and a cross-platform mobile app (Flutter, Dart).

COMMUNITIES & LEADERSHIP

Lead and founder of a Google Developer Student Club with more than 100 students.

Selected Mentee at LeadTheFuture, a Forbes awarded organization with an acceptance rate <20%.

Italian Association for Machine Learning, active member in study groups.

Selected volunteer for NeurIPS 2021. Organizers honor my work as one of the best.

AWARDS

25th out of about 600 participants at First Ascent Italy (Italy's Finest Computer Science students).