Federico Cristiano Bruzzone

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I am a master student in Computer Science at Università degli Studi di Milano, born in Magenta (MI) on 7th of March 2000. I got my bachelor degree in Computer Science in 2022. I am currently involved in the research activity of the ADAPT Lab. I am also a pianist and composer.

EDUCATION

Master of Science
Period: October 2022 — July 2024
Institution: **Università degli studi di Milano**
Department **Computer Science**
Thesis Supervisors: **W. Cazzola** — L. Favalli
Thesis Title: Toward a modular approach for type systems and LSP generation

Bachelor of Science
Period: October 2019 — October 2022
Institution: **Università degli studi di Milano**
Department **Computer Science**
Thesis Supervisors: **A. Visonti** – L. A. Ludovico – A. Baraté
Thesis Title: Intellectual Property and Digital Rights Management on blockchain for the IEEE 1599 standard

Conservatory of Music
Period: September 2011 — July 2019
Institution: **I.S.S.M. Novara Conservatory "Guido Cantelli"**
Department: **Pianoforte and Music Composition**

High School Diploma
Period: September 2014 — July 2019
Institution: **I.T.I.S. - Liceo Scientifico Scienze Applicate "E. Alessandrini"**
Department: **Computer Science and Telecommunications**

RESEARCH EXPERIENCE

Scientific Research
Period: November 2022 — Present
Institution: **Università degli studi di Milano**
Department **Computer Science**
Laboratory: **ADAPT Lab**
Supervisors: **W. Cazzola** – **A. D. A. Momigliano** – **L. Capra** – **C. Fiorentini**
During my research I studied compiler construction, programming language design, software and language product lines. I worked on the extension of the Neverlanglanguage workbench to support Universal Language Server Protocols.

Scientific Research
Period: January 2022 — September 2022
Institution: **Università degli studi di Milano**
Department **Computer Science**
Laboratory: **LIM Lab**
Supervisors: **G. Haus** – **F. Avanzini** – **L. A. Ludovico** – **A. Baraté** – **A. Mancuso**
During my research I studied the application of blockchain technology to the IEEE 1599standard for music representation. I worked on the definition of a digital rights management system for the standard.

TEACHING ASSISTANT EXPERIENCE

Mathematical Logic
Period: June 2024 — February 2025
Institution: **Università degli studi di Milano**

Department: **Computer Science**
Professors: **S. Aguzzoli – C. Fiorentini – M. Bianchi**
The course is an introduction to the concepts of mathematical logic.

Computer Science 1
Period: October 2023 — February 2024
Institution: **Università degli studi di Milano**
Department: **Computer Science**
Professors: **P. Boldi – A. Trentini**
The course is an introduction to the concepts of computer science and programming using GoLang.

Programming in Python
Period: October 2023 — February 2024
Institution: **Università degli studi di Milano**
Department: **Chemistry**
Professors: **M. Monga**
The course is divided in two parts: the first part is an introduction to the concepts of programming using Python, the second part is an introduction to the concepts of data analysis using Pythonusing NumPyand Pandas.

EXPERIENCE

Sound Engineer and Composer
Period: January 2019 — Present
Institution: **Freelance**
As sound engineer, pianist and composer I work in the music industry. I have produced and mixed music for various artists distributed on all worldwide platforms, realized 100k+ streams. The distribution of my music has been managed by Believe.

Computer Science Laboratories
Period: January 2024 — July 2024
Institution: **Università degli studi di Milano**
Department: **Computer Science**
Professors: **V. Lonati – A. Morpurgo**
ALaDDIn(Laboratory of Computer Science Education) organizes a series of laboratory activities for students who failed the Computer Science 1 exam. The activities are intended to give students the opportunity to explore the topics of the course giving them exercises to solve. My role was organizing the activities, find rooms for the laboratory and with eight other students help the students explaining the exercises and helping them in case of need.

Workshops for schools
Period: January 2024 — July 2024
Institution: **Università degli studi di Milano**
Department: **Computer Science**
Professors: **V. Lonati – A. Morpurgo**
ALaDDIn(Laboratory of Computer Science Education) has conceived and experimented some didactic workshops in different contexts. The activities are intended to give pupils the opportunity to explore an informatic topic: investigate it firsthand, make hypotheses that can then be tested in a guided context during the activity, and construct viable mental models. My role was to explain the activities to the pupils and to help them in case of need.

Bebras Challenge
Period: November 2023 — November 2023
Institution: **Università degli studi di Milano**
Department: **Computer Science**
Professors: **V. Lonati – A. Morpurgo**
ALaDDIn(Laboratory of Computer Science Education) organize the Italian edition of the Bebras challenge (italian websiteand international website). Bebras' goal is to let pupils approach informatics as a scientific discipline in a playful way: no prior knowledge about informatics is required, everybody can take part in it. My role was to help professors during the challenge, to explain the tasks to the pupils and to help them in case of need.

GRANTS AND FELLOWSHIPS

University scholarships
Accademic Year: 2023 — 2024
Funder: **Università degli studi di Milano**

Exemption from university fees
Accademic Year: 2023 — 2024 | 2022 — 2023 | 2021 — 2022 | 2020 — 2021
Funder: **Università degli studi di Milano**

PROFESSIONAL MEMBERSHIPS

ADAPT Lab
Period: November 2022 — Present
ADAPT Labis a research laboratory of the Università degli studi di Milano. The laboratory is focused on the study of programming languages, compilers, software and language product lines.

SIAE
Period: January 2019 — Present
SIAEis the Italian Society of Authors and Publishers.

I Cuochi Music
Period: January 2019 — Present
I Cuochi Music is a music production company. I am a member of the company as a composer and sound engineer.

SteeCuts
Period: January 2019 — Present
SteeCuts is a music production company. I am a member of the company as a composer and sound engineer.