# Federico Cristiano Bruzzone

## Curriculum Vitae

PhD Student in Computer Science at ADAPT Lab (Università degli Studi di Milano), under the supervision of Prof. W. Cazzola. Programming Languages and Compilers enthusiast. Also, a Sound Engineer and Music Composer.

#### PERSONAL INFORMATION

Born in Magenta (MI), Italy on 7th of **March 2000** Resident of Via F. Turati 75/F, Arluno (MI), 20004

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#### **CONTACT INFORMATION**

○ Github: github.com/FedericoBruzzone

• Telegram: @federicobruzzone

■ LinkedIn: in/federico-bruzzone

Twitter: @fedebruzzone7

• Reddit: u/FedericoBruzzone

Website: federicobruzzone.github.io

## **EDUCATION**

#### ACADEMIC TITLES

#### 2024-Present PhD Student in Computer Science

Since 2024, I have been a PhD student in Computer Science at the **ADAPT Lab** of the Università degli Studi di Milano, under the supervision of **Walter Cazzola**. My research interests include, but are not limited to, programming languages, compilers, software maintenance, and software and language product lines.

2022-2024 MSc in Computer Science

(15/07/2024) At Università degli Studi di Milano defending the thesis:

"Toward a Modular Approach for Type Systems and LSP Generation"

with final grade 110/110 cum laude.

Supervisor: **Walter Cazzola**, Università degli Studi di Milano Co-supervisor: **Luca Favalli**, Università degli Studi di Milano

2019-2022 BSc in Musical Computer Science

(13/10/2022) At Università degli Studi di Milano defending the thesis:

"Intellectual Property and Digital Rights Management on Blockchain for the IEEE 1599

Standard".

Supervisor: Andrea Visconti, Università degli Studi di Milano

Co-supervisor: Luca Andrea Ludovico, Università degli Studi di Milano

2011-2019 Conservatory of Music

From l'I.S.S.M. Novara Conservatory "Guido Cantelli" department of

Pianoforte and Music Composition.

# 2014-2019 High School Diploma in Computer Science and Telecommunications From l'I.T.I.S. - Liceo Scientifico Scienze Applicate "E. Alessandrini"

## RESEARCH ACTIVITIES

#### 2-7 Sep 2024 ICFP 2024 - Student Volunteer

The 29th ACM SIGPLAN International Conference on Functional Programming has been in Milan, Italy, in September 2024. After a selection process, I was chosen as a student volunteer. I helped the organization of the conference and the attendees during the event.

#### 2022-Present Scientific Research at ADAPT Lab

Since 2022, at the **ADAPT Lab** of the Università degli Studi di Milano, I have been working on the development of a modular approach for type systems and LSP generation for the research project **Neverlang** (originally conceived by **Walter Cazzola**). During this period, I studied the compiler construction, programming languages design and software and language product lines.

#### 2021-2022 Scientific Research at LIM Lab

From 2021 to 2022, at the **LIM Lab** of the Università degli Studi di Milano, I worked on the development of solutions for the integration of blockchain technology in the music industry, focusing on intellectual property and digital rights management for the **IEEE 1599** standard.

## SCIENTIFIC PUBLICATIONS

#### This paper is work in progress and will be submitted to the journal soon.

[1] F. C. Bruzzone, W. Cazzola, and L. Favalli, "Code Less to Code More: Streamlining LSP Development for Language Families," *Journal of Systems and Software*, 2024.

Journal Ranked Q1 on Scimago - scimagojr.com/journal-of-systems-and-software

## TEACHING ACTIVITIES

#### GRADUATE COURSES

#### 2024-2025 Mathematical Logic

I assisted the Professor **Stefano Aguzzoli** in the exams of "Mathematical Logic" for the Bachelor's Degree in Computer Science, Università degli Studi di Milano.

#### 2023-2024 General Computer Science

I assisted the Professor **Alberto Davide Adolfo Momigliano** in the exams of "General Computer Science" for the Bachelor's Degree in Communication and Society, Università degli Studi di Milano.

#### 2023-2024 Computer Science 1

I assisted the Professor **Andrea Trentini** in the course "Computer Science 1" for the Bachelor's Degree in Computer Science, Università degli Studi di Milano.

#### 2023-2024 Programming in Python

I assisted the Professor **Mattia Monga** in the course "Programming in Python" for the Master's Degree in Chemistry, Università degli Studi di Milano.

#### Additional Activities

#### 2023-Present Private Tutoring

Since 2023, I have been tutoring university students in Computer Science and high school students in Mathematics, Physics, and Computer Science.

#### Nov 2024 Bebras Challenge

In collaboration with ALaDDIn Lab of the Università degli Studi di Milano, I helped manage the Bebras Challenge, an international informatics competition for students.

#### Jan-Jun 2024 Computer Science Laboratories

In collaboration with ALaDDIn Lab and the Professor **Violetta Lonati** of the Università degli Studi di Milano, I have been responsible for the organization and management of the Computer Science Laboratories for the Bachelor's Degree in Computer Science.

#### Jan-Jun 2024 Workshops for schools

In collaboration with ALaDDIn Lab and the Professors **Violetta Lonati** and **Anna Morpurgo** of the Università degli Studi di Milano, I helped manage workshops for high school students on the topics of Computer Science.

#### Nov 2023 Bebras Challenge

In collaboration with ALaDDIn Lab of the Università degli Studi di Milano, I helped manage the Bebras Challenge, an international informatics competition for students.

## WORK EXPERIENCE

#### 2021-Present Sound Engineer and Producer

Since 2021, I have been working as a sound engineer and producer, collaborating with various artists in the recording, mixing, and mastering of their music, realizing 100k+ streams on Spotify for some of them.

I am a SIAE member and Believe distributed my music in all the main digital stores.

## GRANTS AND FELLOWSHIPS

#### 2024 56th Top Github Contributor in Italy out of 958

I was awarded the 56th Top Github Contributor in Italy out of 958 according to this classification.

#### 2023-2024 Scholarship for the Master's Degree in Computer Science

I was awarded a scholarship for the Master's Degree in Computer Science at the Università degli Studi di Milano.

#### 2020-2024 Exemption from university fees

I was awarded an exemption from university fees for the Bachelor's Degree in Musical Computer Science at the Università degli Studi di Milano.

## **Tongues**

**Italian** Mother tongue

English Level CEFR B2 (SLAM at Università degli Studi di Milano)

**Spanish** Base (A1-A2)

## OTHER ACTIVITIES

#### **ARTISTIC ACTIVITIES**

#### 2006-Present Pianist and Music Composer

Since 2006, I have been studying piano and music composition.

I have composed music for various ensembles and soloists, and I have performed in various concerts and recitals.

I have also participated in various national and international competitions, winning several awards.

#### 2019-Present Piano and Music Teacher

Since 2019, I have been teaching piano and music theory and composition to students of all ages and levels.

I have also prepared students for various music exams and competitions.

#### **SPORT ACTIVITIES**

#### 2012-2019 Football

I practiced agonistic football for 7 years, playing in various regional championships. I played for most of the time for the Bustese Calcio team.

#### 2004-2012 **Swimming**

I practiced swimming for 8 years, participating in various regional competitions.

Milan, 24/11/2024