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

CONTACT 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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○ 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 and language product lines and software maintenance.

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

Reviews

I have reviewed papers for the following conferences and journals:

2025 Journal of Systems and Software

Publisher: Elsevier

VOLUNTEERING

2-7 Sep 2024 ICFP 2024

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.

INTERNSHIPS

2022-2024 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, software and language product lines and software maintenance.

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

ARTICLES IN INTERNATIONAL JOURNALS WITH PEER REVIEW

This paper has been submitted to the special issue *Trends in Systems and Software Product Line Engineering* [1] F. Bruzzone, W. Cazzola, and L. Favalli, "Code Less to Code More: Streamlining Language Server Protocol and Type System Development for Language Families," *Journal of Systems and Software*, 2024. **Journal Ranked Q1 on Scimago** - scimagojr.com/journal-of-systems-and-software

TEACHING ACTIVITIES

THESIS SUPERVISION AS CO-ADVISOR

24/02/2025 Luca Favini

RustyEx: Intrumenting rustc to Extract Feature Dependency Graphs

Bachelor in Computer Science, Università degli Studi di Milano

GRADUATE COURSES

2025-2026 Mathematical Logic (Art. 45)

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.

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.

DISSEMINATION ACTIVITIES

2024-Present

Co-organizer of the MUSEMI

Session Chair, **Speaker** and **Co-organizer** of MUSEMI (Meet Us for SEminars @uniMI). MUSEMI is a series of seminars organized by and for PhD students and research fellows to **disseminate their scientific research** and **foster collaboration among different research groups** within the Department of Computer Science. Additionally, MUSEMI encourages the participation of Master's students interested in pursuing an academic career.

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.

OTHER ACTIVITIES

ARTISTIC ACTIVITIES

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.

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 some of them.

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.

Tongues

Italian Mother tongue

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

Spanish Base (A1-A2)

Milan, 24/02/2025