# 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

## **Apr-Jun 2025** Committee Member at SLE 2025

I served as a Committee Member (in Artifact Evaluation Committee) at the 18th ACM SIGPLAN International Conference on Software Language Engineering (SLE 2025). Check here for more details.

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

I served as a Student Volunteer at the 29th ACM SIGPLAN International Conference on Functional Programming (ICFP 2024). Check here for more details.

#### Reviews

I have reviewed papers for the following conferences and journals:

# **2025** Journal of Systems and Software

Publisher: Elsevier

Issue: Trends in Systems and Software Product Line Engineering

Ranked Q1 on Scimago

# **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

These publications are in the review process and may not be available yet.

[1] F. Bruzzone and W. Cazzola, "RustyEx: Prioritizing Rust Configurations," in 41st IEEE/ACM International Conference on Automated Software Engineering (ASE). Association for Computing Machinery, 2025.

#### Conference Ranked A\* on CORE

[2] 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** 

# TEACHING ACTIVITIES

#### THESIS SUPERVISION

10/04/2025 Dario Pellegrino

Scalable Multi-client Real-time Whisper

Bachelor in Computer Science, Università degli Studi di Milano

Score: 96

09/04/2025 Andrea Longoni

**GUIDE: Graphical User Interface Development Environment** 

Master in Computer Science, Università degli Studi di Milano

Score: 110 cum laude

09/04/2025 Leonardo Albani

New Generalized Protocol For Software Product Line Extraction And

Configuration

Master in Computer Science, Università degli Studi di Milano

Score: 110 cum laude

09/04/2025 Gabriele Esposito

Fr3D: A Framework for DAP-compatible DSL-oriented Debugging

Master in Computer Science, Università degli Studi di Milano

Score: 110 cum laude

24/02/2025 Luca Favini

RustyEx: Intrumenting rustc to Extract Feature Dependency Graphs

Bachelor in Computer Science, Università degli Studi di Milano

Score: **102** 

#### **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

#### 2-6 Jun 2025 Participant at < Programming > 2025

I participated in the 2025 edition of the <Programming> conference, which is a premier venue for programming language research. It was held in **Prague**, **Czech Republic**.

#### 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, 08/06/2025