

# Lorenzo Pegorari

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## Education

### Polytechnic University of Milan

PURSUING A BACHELOR'S DEGREE OF SCIENCE IN COMPUTER SCIENCE AND ENGINEERING

Cremona, Italy

Sep. 2021 - present

### Scientific High School "Gaspere Aselli"

HIGH SCHOOL DIPLOMA IN SCIENTIFIC STUDIES, GRADUATED WITH 3.25/4.0 GPA

Cremona, Italy

Sep. 2016 - Jun. 2021

## Experience

### Google Summer of Code 2025

GSoC'25 CONTRIBUTOR FOR THE OPEN SOURCE ORGANIZATION BRL-CAD

United States, Online

May 2025 - Sep. 2025

- Chosen among 1,272 accepted contributors against 15,241 participants (~8.3% acceptance rate).
- Enhanced the lightweight object-oriented API MOOSE, enabling applications to easily interface with the Geometry Editing Library (libged).
- Developed a console widget for Arbalest, BRL-CAD's prototype GUI, giving users access to libged's commands.
- Engineered a new tree-based representation for geometry file objects, cutting file-opening time by an average of 66% (with peak optimizations over 97%) and significantly improving code clarity and maintainability.
- Technologies used: C, C++, Qt6.

## Side Projects

### OPEN SOURCE

#### BRL-CAD

OPEN SOURCE DEVELOPER

Online

Mar. 2025 - present

- Selected as a GSoC'25 Contributor.
- Contributed to BRL-CAD's prototype GUI Arbalest and lightweight, modular, object-oriented API MOOSE.
- Technologies used: C, C++, Qt6.

### PERSONAL PROJECTS

#### Simply Colorful - Theme for the note-taking application Obsidian

CREATOR | MAIN DEVELOPER | MAIN DESIGNER

Online

Oct. 2024 - present

- This theme has gathered over 6000 downloads (as of August 16th, 2025).
- Technologies used: SASS, CSS, Grunt (JavaScript task runner).

## Skills

Front-end	SASS, CSS3, HTML5, JavaScript
Software engineering	C, C++, Python3, Qt6
Other languages	RISC-V, MIPS, LaTeX
Softwares	Git, GitHub, Google Sheets, Microsoft Excel, Microsoft Word, Microsoft Powerpoint
Languages	Italian (Native), English (C1 Proficiency)

## Certificates

2020	<u>Cambridge English B2 First</u> , Overall Cambridge English Scale score: 180 (CEFR Level C1)	ID: B2962291
2019	<u>Cambridge English B1 Preliminary</u> , Overall Cambridge English Scale score: 163 (CEFR Level B2)	ID: 196/IT0600133

## Competitions

2023	<u>ITACPC 2023</u> , participated as a team of 3 people and placed 49th out of 218 teams	Online
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## Extracurricular Courses

## Worlds generated by code: The Generative AI

8 HOURS COURSE HELD BY ANDREA BELLÌ, ENTERPRISE ACCOUNT EXECUTIVE AT LINKEDIN

- Learned the basics of how Large Language Models operate.
- Learned the basics of Prompt Engineering to obtain as fast as possible the clearest output from a LLM.
- Discussed the ethics, the opportunities and the risks of using LLMs.

*Polytechnic University of Milan*

*Nov. 24th, 2023*

## Boolean Data Week

8 HOURS WORKSHOP HELD BY BOOLEAN

- Learned the basics of Data Analysis with Python and Tableau.
- Modified, cleaned and visualized an example dataset of 930k movies to find insights into cinematography.

*Online*

*Nov. 20th-24th, 2023*

## LinkedIn to look for a job

2 HOURS SEMINARY HELD BY ANDREA BELLÌ, ENTERPRISE ACCOUNT EXECUTIVE AT LINKEDIN

- Learned to create the perfect LinkedIn profile as a support for finding the desired job.

*Polytechnic University of Milan*

*Nov. 17th, 2023*

## Boolean Coding Week

8 HOURS WORKSHOP HELD BY BOOLEAN

- Learned the basics of HTML, CSS and JavaScript for front-end web developing.
- Created 3 examples of web games (Minesweeper, Stacker and Frogger).

*Online*

*Oct. 16th-20th, 2023*

## Rapid Prototyping: Open Data e Machine Learning (GitHub Repo)

4 HOURS WORKSHOP HELD BY JACOPO DE STEFANI, PH.D IN TIME SERIES ANALYSIS AND FORECASTING THROUGH MACHINE LEARNING

- Modified, cleaned and visualized an example dataset of 5110 people's personal and medical information using Python, Jupyter Notebook, pandas and seaborn.
- Prototyped a ML model capable of predicting an individual's chance of having a stroke using scikit-learn.

*Polytechnic University of Milan*

*Dec. 16th, 2022*

## Artificial Intelligence: Instructions for use

2 HOURS SEMINARY HELD BY JACOPO DE STEFANI, PH.D IN TIME SERIES ANALYSIS AND FORECASTING THROUGH MACHINE LEARNING

- Learned the basics of AI (different dataset requirements, instance-based and model-based learning, data management, etc.).
- Learned the basic inner workings of ML (linear regression, decision trees, Artificial Neural Networks, etc.).
- Discussed the ethics of ML.

*Polytechnic University of Milan*

*Dec. 13th, 2022*

## Kotlin and Jetpack: For modern and efficient Android apps

8 HOURS COURSE HELD BY LUCIANO BARESI, PROFESSOR AT POLYTECHNIC UNIVERSITY OF MILAN

- Learned the basics of Kotlin and Jetpack Android, the structure of a typical Android app and how to use the official IDE Android Studio.
- Created a simple application.

*Polytechnic University of Milan*

*Nov. 22nd & 25th, 2022*

## Beyond The Subject: Conceptual changes induced by artificial intelligence and other natural or artificial sciences

2 HOURS SEMINARY HELD BY GIANLUCA MAGNANI, BA OF PHILOSOPHY AT UNIVERSITY OF MILAN

- Discussed the philosophical mutations in the meaning of the word "subject", and many correlated terms such as "rationality" and "free will", caused by the persuasive impact of AI on our means of understanding.

*Polytechnic University of Milan*

*Feb. 19th, 2021*