

# Julio Zenelaj


**Date of birth:** 10/10/2004 | **Email address:** [juliozenelaj@gmail.com](mailto:juliozenelaj@gmail.com) | **Website:**  
<https://www.linkedin.com/in/julio-zenelaj/> | **Website:** <https://github.com/juve-938383>

## WORK EXPERIENCE

 **SAPIENZA UNIVERSITÀ DI ROMA – ROME, ITALY**  
**HIGH-PERFORMANCE LARGE-SCALE COMPUTING LAB - RESEARCH INTERNSHIP – 05/2025 – 09/2025**

This internal research internship, supervised by professor Daniele De Sensi<sup>1</sup>, consisted of research in the field high performance computing (HPC). It lead to the creation of an MPI-based interpreter<sup>2</sup> for the MSCCLang++ language, a Python-based DSL created by Microsoft to simplify the design of collective communication algorithms, because it is originally based on NCCL backend which runs exclusively on NVIDIA hardware, whereas MPI is a more widely supported standard.

- 1.<https://danieledesensi.github.io/>
- 2.<https://github.com/juve-938383/mscclpp-mpi>

 **UNIVERSITÀ DEGLI STUDI DI ROMA LA SAPIENZA – ROME, ITALY**  
**HONOURS PROGRAMME – 03/2024 – 03/2025**

The Honours Programme consisted of research in the field of Computational Geometry, under the supervision of professor Tiziana Calamoneri<sup>1</sup>. One semester was spent studying the basics of the field (following the Computational Geometry<sup>2</sup> book), followed by a semester of practical work on open problems.

- 1.<https://sites.google.com/di.uniroma1.it/tiziana-calamoneri/home-page>
- 2.Berg M., et al. (2008). *Computational Geometry*. <https://doi.org/10.1007/978-3-540-77974-2>

## EDUCATION AND TRAINING

11/2025 – CURRENT Rome, Italy  
**MASTER'S DEGREE IN COMPUTER SCIENCE** Università degli studi di Roma La Sapienza

**Field of study** Computer Science

09/2022 – 10/2025 Rome, Italy  
**BACHELOR'S DEGREE IN APPLIED COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE** Università degli studi di Roma La Sapienza

**Field of study** Computer Science | **Final grade** 110 | **Type of credits** ECTS | **Number of credits** 180 |

**Thesis** Simplifying Collective Algorithm Implementation by Building an MPI Interpreter for Microsoft's Collective Communication Language

## LANGUAGE SKILLS

Mother tongue(s): **ALBANIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C2	C1	C1	C1
ITALIAN	C1	B2	B1	B2	B1

\*Personal projects and skills sections omitted for compactness. If needed, please refer to the LinkedIn profile provided above.