Julio Zenelaj

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WORK EXPERIENCE

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

This internal research internship, supervised by professor Daniele De Sensi[1], consisted of research in the field high performance computing (HPC). It lead to the creation of an MPI-based interpreter[2] 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

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

The Honours Programme consisted of research in the field of Computational Geometry, under the supervision of professor Tiziana Calamoneri[1]. One semester was spent studying the basics of the field (following the Computational Geometry[2] 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

*For a list of personal projects please refer to my website or LinkedIn account.