

Manuel Di Agostino

MASTER'S STUDENT IN COMPUTER SCIENCE

Parma, 43121, Italy

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Education

University of Parma

Parma, Italy

MASTER'S DEGREE IN COMPUTER SCIENCE (EXPECTED)

Sep. 2024 - Jul. 2026

University of Parma

Parma, Italy

BACHELOR'S DEGREE IN COMPUTER SCIENCE

Sep. 2021 - Jul. 2024

Grade: 110/110 cum laude

Title: "Valutazione sperimentale sull'individuazione automatica di errori di programmazione nel codice generato da LLM"

Supervisor: Prof. Enea Zaffanella Co-supervisor: Prof. Vincenzo Arceri

Keywords: Static Analysis, Al, LLM, Software Verification and Validation

Interests

My primary academic interests lie in Software Verification, particularly in Static Analysis by Abstract Interpretation. During my internship, I worked on integrating the PPLite library into the Mopsa static analyzer, further enhancing my practical experience and technical skills in this field. My bachelor's thesis focused on evaluating the quality of source code generated by Large Language Models (LLMs) through static analysis.

Experience

University of Parma

Parma, Italy

INTERNSHIP

Oct. 2023 - Jan. 2024

- Examined the Mopsa static analyzer (https://mopsa.lip6.fr/) through a series of benchmarks (coreutils-benchmarks, juliet-benchmarks)
- Integrated the PPLite library (https://github.com/ezaffanella/PPLite) into the framework
- Created a docker container to automate the installation (manueldiagostino/mopsa:pplite)

Tools and Software

Deep Neural Network Library

From May 2024

A flexible C++ library for building, training, and using deep neural networks. Modular, easy-to-use, and high-performance. The library supports various neural network architectures, efficient training tools, and robust inference methods

(https://github.com/unipr-org/deep-neural-network).

Conferences and Workshops _____

2024 Partecipant, CSV 2024, 3th Challenges of Software Verification Symposium

Venice, Italy