



ANTONIO MASTROPAOLO

📍 LUGANO, 6900, SWITZERLAND 📞 +41 765670802

◦ DETAILS ◦

Lugano, 6900
Switzerland
+41 765670802

antonio.mastropaolo@usi.ch

Place of birth
Campobasso, Molise (IT)

Nationality
Italian

◦ MORE ON ME ◦

[Personal Website](#)

[Google Scholar](#)

[GitHub](#)

[LinkedIn](#)

◦ RESEARCH INTERESTES ◦

Natural Language Processing (NLP) in software engineering

Source Code Generation via Deep Learning Methods

Deep Learning for Software Engineering (DL4SE)

◦ PROGRAMMING LANGUAGES ◦

Java

Python

C

JS/CSS/HTML

◦ LANGUAGES ◦

Italian, Mother Tongue
English, Highly Fluent

👤 SUMMARY

Antonio is a highly motivated, disciplined, and insatiably curious person, eager to learn new things and grow constantly. As a result, he is pursuing a Ph.D. in Computer Science in the Faculty of Informatics at the Università Della Svizzera Italiana (USI), Switzerland, where he is part of the Software Institute. In addition, he received his MSc. in Software System Security from Università Degli Studi del Molise, Italy, in July 2020. His research interests include studying and applying deep-learning techniques to foster code-related tasks.

🎓 EDUCATION

Bachelor in Computer Science, Università degli studi del Molise, Campobasso, Molise (IT)

October 2015 — July 2018

During my bachelor's degree, I built a solid computer science foundation and, in my final year, I had the chance to work on a research project concerning the dynamic distribution of the search budget in search-based software testing that eventually led me to an experimental thesis named: "An Adaptive allocation of search budget in search-based software testing" and a journal-first publication (TOSEM).

I graduated (Cum Laude) in July 2018, by successfully defending my thesis

MSc in Software System Security, Università degli studi del Molise, Campobasso, Molise (IT)

October 2018 — July 2020

During my master's degree, I had the opportunity to grow my skills and enrich my knowledge by participating in various research projects ranging from formal methods, machine learning, and deep learning. I successfully obtained my (Cum Laude) master's degree, defending a thesis named: "DeepGen: A Multi-Task Learning Model for Software Engineering related tasks" in July 2020. This work has been accepted for publication at the International Conference On Software Engineering (ICSE 21).

📁 RESEARCH EXPERIENCE

Research Assistant at UNIMOL, Isernia

February 2020 — July 2020

During this period, I had the opportunity to work back to back with Prof. Gennaro Parlato and Prof. Salvatore La Torre in developing and implementing an over-approximation schema for the C programming language. Such a schema was integrated into Lazy C-Seq, which analyzes concurrent programs.

🏆 CERTIFICATIONS

Offensive Security Wireless Attacks, OSWP

January 2019

<http://tiny.cc/n2tuuz>

👤 SCIENTIFIC PUBLICATIONS

- Studying the usage of text-to-text transfer transformer to support code-related tasks. *2021 IEEE/ACM 43rd International Conference on Software Engineering (ICSE)*
- An Adaptive Search Budget Allocation Approach for Search-Based Test Case Generation. *ACM Transactions on Software Engineering and Methodology (TOSEM) 30 (3), 1-26*
- An Empirical Study on Code Comment Completion. *2021 IEEE International Conference on Software Maintenance and Evolution (ICSME)*
- An Empirical Study on the Usage of Transformer Models for Code Completion. *IEEE Transactions on Software Engineering (TSE)*
- Using Deep Learning to Generate Complete Log Statements. *2022 IEEE/ACM 44th International Conference on Software Engineering (ICSE)*
- Using Pre-trained Models to Boost Code Review Automation. *2022 IEEE/ACM 44th International Conference on Software Engineering (ICSE)*
- Using Transfer Learning for Code-Related Tasks. *IEEE Transactions on Software Engineering (TSE)*

★ PROFESSIONAL SERVICE

○ Program Committe

MSR 2022 The 19th International Conference on Mining Software Repositories, May 18-20 & 23-24, 2022 - Pittsburgh, USA - Shadow PC.