# Nicola Assolini

I am a PhD student at the **University of Verona**. My research interests are **quantum programming languages**, **static analysis**, and **abstract interpretation**.

## Personal Data


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| Date of Birth: | Brescia, BS \| 29/11/1998 |
| Email: | nicola.assolini.98@gmail.com , nicola.assolini@univr.it |
| LinkedIn: | www.linkedin.com/nicola-assolini |
| WebSite: | nicolaassolini98.github.io |
| Scholar: | Nicola Assolini |


## Experiences

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| 10/2024 - 12/2024 | Visiting Researcher, University of Arizona, Tucson<br>*Visiting researcher at University of Arizona under the supervision of Prof. Roberto Giacobazzi* |
| 05/2024 - 06/2024 | Visiting Researcher, Tsinghua University, Beijing<br>*Visiting researcher at Tsinghua University and Institute of Software, Chinese Academy of Sciences under the supervision of Prof. Mingsheng Ying* |
| 2020 - 2021 | Research Fellow, University of Verona<br>*Development of a technology for the management of finance facilitated with machine learning and semantic web methods* |
| 2020 | Research Fellow, ALTAIR Robotics Lab<br>*Design and implementation Of algorithms for statistical analysis of experimental results* |

## Education

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| 2022 - | PhD in Computer Science<br>**University of Verona** Computer Science Department<br>Interest: quantum programming languages, quantum software, abstract interpretation<br>Advisors: Prof. Alessandra Di Pierro, Prof. Isabella Mastroeni |
| 2020 - 2022 | Master's Degree in Computer Science and Engineering, Class LM-32<br>Final grade 110/110 cum Laude<br>**University of Verona**<br>Thesis: "A static analysis for uncomputation in quantum programming languages"<br>Supervisor: Alessandra Di Pierro |
| 2017 - 2020 | Bachelor's Degree in Computer Science, Class L-31<br>Final grade 110/110 cum Laude<br>**University of Verona** |
| 2017 | Diploma (Maturità Scientifica)<br>Final grade 80/100<br>**Scientific Lyceum - Don Milani Montichiari** |

## Publications and Talks

### In Conference Proceedings

2025 | Nicola Assolini, Alessandra Di Pierro and Isabella Mastroeni.
*"A Static Analysis for High-Level Quantum Programming Languages"*, In **VMCAI 2025**

2024 | Nicola Assolini, Alessandra Di Pierro and Isabella Mastroeni.
*"Static analysis of quantum programs"*, In **SAS 2024**

Nicola Assolini, Alessandra Di Pierro and Isabella Mastroeni.
*"Abstracting entanglement, International"*, In **NSAD 2024**

### Workshops

2025 | Nicola Assolini, Alessandra Di Pierro.
*"A Semantics for Quantum Loops"*, In (**WQS 25)**

Nicola Assolini, Alessandra Di Pierro and Isabella Mastroeni.
*"Interval-based Analysis of Quantum Variational Computing"*, In (**VQC 25)**

2024 | Nicola Assolini, Alessandra Di Pierro and Isabella Mastroeni.
*"A Static Analysis for High-Level Quantum Programming Languages"*, In (**WQS 24)**

## Teaching and Tutoring

### Teaching Assistant

2024 - | Quantum computing course (Laboratory part), MSc Computer Science
**University of Verona**

2020 - 2023 | Foundations of Computing course, BSc Computer Science
**University of Verona**

2022 - 2023 | Compilers course (Laboratory part), BSc Computer Science
**University of Verona**

### Tutoring

2022 - | Organizer and Tutor of Cyberchallenge project
**University of Verona**

## Schools

2024 Lipari Summer School on Abstract Interpretation [link]
2023 EQAI 2023 - Quantum Machine and Deep Learning [link]

## Service

- Program Committee and Organizing Committee Member of Workshop on Quantum Software (**WQS**) 2024 and 2025.

- I am part of SIGPLAN-AV team and I have been Video co-chair during **POPL 25** and **SPLASH 2024**.

## Achievements

2022 Qualified for the national competition of the CyberChallenge.IT project
2017 Member of a finalist team in the National Mathematics Olympics