

Theodore F Mollano — Engineer

1433 Paresky, 54 Chapin Hill Dr. – Williamstown, MA 01267

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*US and Italian Citizen. Focused on applying scientific principles to solve
real world problems in original ways*

Education

Williams College

Bachelor of Arts in Physics and Mathematics, GPA: 3.84 – Dean's List

- Physics Major with Honors, Mathematics Major with Honors

Williamstown, MA

2021–Present

Research Experience

Giovanetti Laboratory

Physics Research Assistant

- Developed computer programs in Arduino and Python for data analysis of in-house experiments on argon-based scintillation
- Built a PID controller for an argon-based Time Projection Chamber (TPC)
- Deployed and managed a server using InfluxDB for data storage and Grafana for real-time data visualization
- Led 2025 Research Project analyzing gamma ray spectra of tantalum decays

Williams College

2022–2025

Williams College

Mathematics Research Assistant

- Studied Symplectic geometry and invariants under $SO(3)$ transformations under the supervision of Professor Terek

Williamstown, MA

2024

Teaching Experience

Williams College

Mathematics Teaching Assistant

- Assisted in courses: Abstract Algebra (2023) and Measure Theory (2024)
- Provided tutoring sessions and facilitated group studies to enhance student understanding of complex mathematical concepts

Williamstown, MA

2023–2024

Professional Experience

Mathematica/Wolfram Research

Chemical Graph Researcher

- Interned for a year implementing programs for computational chemistry using Mathematica software
- Developed algorithms for analyzing chemical graphs and molecular structures
- Collaborated with a team to improve software tools for chemists and researchers

Remote

2021–2023

Skills

Technical

- Partial Differential Equations
- Bayesian Statistics
- Stat Mechanics

Programming

- Python, C++, Java
- Arduino, Git, Robotics, Machining and Metalworking

Software & Tools

- LaTeX, Mathematica
- HTML, CSS, Node.js
- PHP, JavaScript.

Awards & Honors

2021–Present: Dean's List, Williams College

2025: Physics Major with Honors

2025: Mathematics Major with Honors