

# Theodore F Mollano — Engineer

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

📞 (603) 491 9497 • ✉️ tfmollano@gmail.com

*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: 3.80 – 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