

Curriculum Vitae - Evan Toon - Undergraduate Physics Student

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EDUCATION

University of Tennessee, Expected Graduation May 2027

Knoxville, TN

Physics(BS), Academic Concentration, Astronomy Minor

- GPA: Undergraduate - 3.90

RESEARCH EXPERIENCE

Dynamic Nuclear Polarization (DNP) - Nuclear Physics Research

April 2025 - Present

Dr. Nadia Fomin - University of Tennessee

Knoxville, TN

- **Computational** - Worked closely with Professor Fomin and collaborators from Jefferson Lab and Oak Ridge National Lab to further investigate how the nuclear polarization of a sample is measured via a Nuclear Magnetic Resonance (NMR) coil within a DNP characterization apparatus by performing a three-Gaussian fitting analysis to infer the physical meaning of a misunderstood background signal that contributes to the overall polarization measurement.
- **In the Lab** - Worked with Professor Fomin and her graduate students to recommission a DNP target setup transferred from Oak Ridge National Lab. Actively contributed to the reassembly and operation of the system, developing hands-on expertise with the dilution refrigerator, helium compressors, vacuum systems, and other critical DNP components.

PRESENTATIONS

Selected Talks

(1) APS Division of Nuclear Physics Fall Meeting - Undergraduate Oral Presentation

Fall 2025

(2) UTK Department of Physics & Astronomy Summer Research Fellowship Summary

Fall 2025

RELEVANT COURSES

Classical Mechanics I [PHYS 311]; Classical Mechanics II [PHYS 312]

Fall 2025, Spring 2026

Waves, Optics, & Relativity [PHYS 251]; Quantum Physics [PHYS 252]

Spring 2025, Fall 2025

Astrophysics I [ASTR 217]; Astrophysics II [ASTR 218]

Fall 2024, Spring 2025

Multivariable Calculus [PHYS 201]; Linear Algebra [PHYS 301]

Fall 2025, Spring 2026

TECHNICAL PROFICIENCIES

Programming: Python (NumPy, Matplotlib, Pandas, SciPy, lmfit), Git

Software: L^AT_EX, Mathematica

AWARDS & HONORS

UTK Physics & Astronomy Summer Research Fellowship

Summer 2025

Dean's List

Fall 2023 – Fall 2025

COMMUNITY & LEADERSHIP

Society of Physics Students (SPS)

Fall 2023 - Present

- Outreach/Media Coordinator

Spring 2026

Astrophysics Journal Club

Fall 2023 – Present

- Member

Astronomy Club

Fall 2025 - Present

- Member

Downhill Longboarding Event Organizer

2021 - Present

- Planned, organized, and hosted several successful downhill longboarding race/freeride events

INTERESTS

Dynamic Nuclear Polarization

Gravitational Wave Detection, Instrumentation

Dilution Refrigeration, Cryogenics

The Violent Universe (High Energy Astrophysics)