

Chase M. Enlowsmith

CONTACT INFORMATION

Phone: 415 - 304 - 4967
Email: cenlowsmith@gmail.com
LinkedIn: linkedin.com/in/chase-enlowsmith/

EDUCATION

The University of Texas at Austin, Austin, Texas Dec 2025
Bachelor of Science in Physics & Astronomy

- GPA 3.91
- Relevant Coursework: Quantum Mechanics, Electrodynamics, Thermodynamics, Relativity, Astrophysics, Cosmology

HONORS AND AWARDS

Phi Beta Kappa, Alpha of Texas chapter Feb 2025 – Present
University Honors, University of Texas at Austin May 2023 – Present
Lightning Talk Competition - 2nd Place, Applied Research Labs Jul 2025
2025 Honors Scholar Lightning Talk:
“Machine Learning on Sound Speed Profiles to Characterize Ocean Variability”

PROFESSIONAL RESEARCH EXPERIENCE

Applied Research Lab, Austin, Texas Jun 2025 – Present
Honors Scholar Intern

- Engineered a machine learning pipeline to geographically cluster underwater acoustic data across basin scales.
- Characterized ocean variability on decadal timescales, providing valuable insight into long-term ocean patterns.
- Created a bespoke data-reduction methodology to optimize pipeline accuracy and efficiency beyond industry standards.
- Innovating new machine learning approaches to predict acoustic features for tactical oceanography applications.
- Authoring a manuscript to be published in peer-reviewed journals.

Center for Gravitational Physics, Austin, Texas Oct 2024 – Aug 2025
Undergraduate Researcher

- Designed and developed a data analysis pipeline to calculate galaxy redshifts from the Hobby-Eberly Telescope (HET) VIRUS-P Parallel Survey (VIPS) utilizing the Redrock API.
- Provided the extracted redshifts from HET spectra for current comparative studies with gravitational wave-derived distance measurements to further investigate the Hubble tension.
- Investigated how cosmological assumptions, the number of lines of sight, galaxy catalogue sparseness, and EM-signal availability all affect the Hubble constant posterior.

RESEARCH PROJECTS

CMBverse, Austin, Texas Jun 2024 – Jul 2025

- Simulated Cosmic Microwave Background (CMB) power spectra utilizing the Cosmic Linear Anisotropy Solving System (CLASS) and graphically analyzed the impact of Lambda Cold Dark Matter (LCDM) model parameters.
- Designed and published a website to display interactive graphs, improving accessibility for academic audiences within the Physics and Astronomy departments at the University of Texas at Austin and beyond.

LEADERSHIP AND COMMUNITY INVOLVEMENT	Theta Chi Fraternity , Austin, Texas Scholarship Chair	Dec 2023 – Dec 2024
	<ul style="list-style-type: none"> • Connected 40+ members with applicable scholarship opportunities, career events, and academic opportunities. • Oversaw academic performance and provided one-on-one career and academic assistance. 	
	Recruitment Captain	Dec 2023 - Dec 2024
	<ul style="list-style-type: none"> • Coordinated recruitment events and outreach to potential new members. 	
TECHNICAL SKILLS	UT MicroFarm , Austin, Texas Volunteer	Apr 2023 – May 2024
	<ul style="list-style-type: none"> • Worked with a team of volunteers to grow plants, manage the upkeep of community garden plots, and compost. • Contributed to producing dozens of pounds of fresh produce donated to the student food bank. 	
LANGUAGES	Python, Matlab, Unix, LaTeX, Microsoft Office Suite, Google Suite, Data Analysis, Machine Learning	
PROFESSIONAL REFERENCES	<p>Brittany ——, Applied Research Laboratories 10000 Burnet Rd, Austin, TX 78758 <i>Phone:</i> _____ <i>Email:</i> _____</p> <p>Sarah ——, Applied Research Laboratories 10000 Burnet Rd, Austin, TX 78758 <i>Phone:</i> _____ <i>Email:</i> _____</p> <p>Gabriele Montefalcone, Ph.D. candidate The University of Texas at Austin 2515 Speedway, Austin, TX 78712 <i>Phone:</i> 609-865-9637 <i>Email:</i> montefalcone@utexas.edu</p>	