

## EDUCATION

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- **University of Texas at Austin** 2021 - present
  - *Ph.D. (expected 2026) Mechanical Engineering, Acoustics* GPA: 4.0
- **University of Texas at Dallas** Class of 2021
  - *B.S. Physics, Minor in Music, Collegium V Honors, Magna Cum Laude* GPA: 3.897

## PUBLICATIONS

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- C. A. Gokani, M. R. Haberman, M. F. Hamilton, "Paraxial and ray approximations of acoustic vortex beams," *J. Acoust. Soc. Am.* **155**, 2707-2723, (2024).

## PROCEEDINGS

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- C. A. Gokani, T. S. Jerome, M. R. Haberman, M. F. Hamilton, "Born approximation of acoustic radiation force used for acoustofluidic separation," *Proc. Mtgs. Acoust.* **48**, 045002 (2022).

## TALKS

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- C. A. Gokani, J. M. Cormack, M. F. Hamilton. "Growth rates of harmonics in nonlinear vortex beams," *J. Acoust. Soc. Am.* **154**, A328 (2023).
- C. A. Gokani, S. P. Wallen, M. R. Haberman. "Reciprocity, passivity, and causality in fully coupled acousto-electrodynamic media," *J. Acoust. Soc. Am.* **154**, A118 (2023).
- C. A. Gokani, S. P. Wallen, M. F. Hamilton, M. R. Haberman. "Source-driven homogenization theory for electro-momentum coupled scatterers," *J. Acoust. Soc. Am.* **153**, A120 (2023).
- S. P. Wallen, B. M. Goldsberry, C. A. Gokani, M. R. Haberman. "Computational Analysis of Sub-wavelength Scatterers exhibiting Electro-momentum Coupling," *J. Acoust. Soc. Am.* **153**, A120 (2023).
- C. A. Gokani, Y. Meng, M. R. Haberman, M. F. Hamilton. "Analytical solution for a focused vortex beam radiated by a Gaussian source," *J. Acoust. Soc. Am.* **152**, A56 (2022).
- C. A. Gokani, M. R. Haberman, M. F. Hamilton. "Physical acoustics homework problems written by students: undisciplined, irreverent, and original," *J. Acoust. Soc. Am.* **152**, A168 (2022).
- C. A. Gokani, T. S. Jerome, M. R. Haberman, M. F. Hamilton, "Born approximation of acoustic radiation force used for acoustofluidic separation," *J. Acoust. Soc. Am.* **151**, A90 (2022).

## EXPERIENCE

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- **Graduate Program in Acoustics at UT Austin and the Applied Research Laboratories** 2021 - present
  - *Graduate Research Assistant*
    - Studying multi-domain bianisotropy with [Prof. Michael Haberman](#)
    - Studying linear and nonlinear vortex beams with [Prof. Mark Hamilton](#)
    - ARL Student Council President, 2023-present
    - [Texas Acoustics Seminar](#) Administrator, fall 2022
- **Acoustical Society of America (ASA)** 2023 - 2025
  - *Biomedical Acoustics Technical Committee (BATC) student council representative*
    - Promote the interests of students in the ASA and organize student-related activities within the Society
    - Serve as a conduit for information for students within BATC
    - Attend Technical Committee meetings to report on student activities
- **Department of Physics at UT Dallas** 2020
  - *Teaching Assistant for Electromagnetism and Waves lab*
- **Advanced Research in Thermo Fluid Systems (ARTS) Lab, UT Dallas** 2019
  - *Undergraduate Research Assistant*
    - Assisted with data collection for Prof. Diana Alatalo's doctoral project on milk rheology

## UTD Cosmology, Relativity and Astrophysics Group

- *Undergraduate Research Assistant* *2017-2018*
  - Under the supervision of [Prof. Michael Kesden](#), studied the perturbative effects of tertiary black holes on the gravitational waves radiated by inspiraling binary black holes
  - Under the supervision of [Prof. Kaloyan Penev](#), catalogued data from the Gaia space observatory

## HONORS & AWARDS

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- **Walker Department of Mechanical Engineering 2024 Poster Competition:** third place for “[Paraxial and ray approximations of acoustic vortex beams](#)”
- **Structural Acoustics and Vibrations Student Competition:** tied for first place for “[Source-driven homogenization theory for electro-momentum coupled scatterers](#)” at 183<sup>rd</sup> ASA in Chicago, *Spring 2023*
- **Chester M. McKinney Graduate Fellowship in Acoustics:** awarded by [the Applied Research Laboratories \(ARL:UT\)](#) for support in acoustics research, *2022-2025*
- **T. W. Whaley, Jr. Friends of Alec Endowed Scholarship:** awarded by the [Cockrell School of Engineering](#) at UT Austin, *2021-2022*
- **Eugene McDermott Scholar:** One of twenty-three undergraduates selected for flagship scholarship at the [University of Texas at Dallas](#), *2017-2021*

## TECHNICAL SKILLS

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- **Theory:** acoustics, electrodynamics, continuum, classical, and quantum mechanics
- **Computation:** MATLAB, Mathematica
- **Writing:** L<sup>A</sup>T<sub>E</sub>X, HTML/CSS, Markdown, MS Office
- **Experiment:** rheometry, astronomy, spectroscopy

## AFFILIATIONS

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- **[Acoustical Society of America, Student Member](#)**, *2021-present*
- **[Texas Astronomical Society, Student Member](#)**, *2018-2021*

## OUTREACH

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- **[Chimes by Chirag](#)**, *2018 - present*
- **[Women in STEM](#)**, volunteer, *2022 - present*
- **[Intellichoice](#)**, math tutor and branch manager, *2018 - 2022*
- **[Society of Physics Students at UTD](#)**, star party coordinator, *2017 - 2021*
- **[Helbing Jazz Initiative](#)**, jam session coordinator, *2019-2020*
- **[Richardson Public Library](#)**, volunteer, *2017 - 2020*