Griffin D. Glenn

Education

2019- **Stanford University**

Stanford, CA

PH.D. APPLIED PHYSICS

Advisor: Prof. Siegfried Glenzer

2015–2019 The University of Texas at Austin

Austin, TX

B.S. Physics (Dean's Scholars Honors), B.A. Plan II Honors

GPA: 3.99, Highest Honors

Honors Thesis Supervisor: Prof. Todd Ditmire

Research Experience _____

Sept. 2019- SLAC National Accelerator Laboratory, HEDS Division

Menlo Park, CA

GRADUATE RESEARCH ASSISTANT

Investigated high-intensity laser-driven ion acceleration using cryogenic low-Z liquid jet targets at the Texas Petawatt Laser at UT Austin.

Analyzed data collected in warm dense matter studies at the Linac Coherent Light Source (LCLS) Matter in Extreme Conditions (MEC) endstation.

Oct. 2015- UT Austin Physics Department, Center for High Energy Density Science

Austin, TX

Aug. 2019

Undergraduate Research Assistant

Designed, constructed, and fielded an electron/positron magnetic spectrometer for use in ultrahigh-intensity laser experiments on the Texas Petawatt Laser, supported by a Spring 2017 UT Austin Undergraduate Research Fellowship.

Built optical apparatus and maintained vacuum equipment for Texas Petawatt experiments run by groups from SLAC National Accelerator Laboratory, Rice University, Los Alamos National Laboratory (LANL), and UT Austin.

Characterized a clustering gas jet under the supervision of Dr. Hernan Quevedo for an undergraduate honors thesis as part of a collaboration with Sandia National Laboratories to study particle transport in a high energy density plasma in the presence of a megagauss magnetic field.

Mar. 2018- SLAC National Accelerator Laboratory, HEDS Division

Menlo Park, CA

Aug. 2018

VISITING RESEARCHER AND SULI INTERN

Ran data acquisition system for LCLS MEC experiment LS64, "In Situ X-ray Diffraction from Isochoric Proton-heated Warm Dense Silica." Analyzed radiochromic film and Thomson parabola data to characterize laser-accelerated proton beam. Designed and constructed an electron spectrometer. Calibrated a GE Typhoon FLA 7000 scanner.

Publications ____

Peer-Reviewed **G.D. Glenn** et al., "Improved large-energy-range magnetic electron-positron spectrometer for experiments with the Texas Petawatt Laser," *JINST* **14** P03012 (2019)

G. Tiwari et al., "Beam distortion effects upon focusing an ultrashort petawatt laser pulse to greater than 10²² W/cm²," Optics Letters **44**, 2764-2767 (2019)

Under Review H. Sawada et al., "2D Monochromatic X-ray Imaging for Beam Monitoring of an X-ray Free Electron laser and a High-Power Femtosecond laser," submitted to *Review of Scientific Instruments*

C. B. Curry et al., "Optimization of radiochromic film stacks to diagnose high-flux laser-accelerated proton beams," submitted to *Review of Scientific Instruments*

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Non-Refereed

Apr. 2017

G.D. Glenn, "Scientific Funding Problems Have Solutions," The Daily Texan, 8 April 2018.

Presentations ____

Apr. 2019 University of Texas Undergraduate Research Forum

Austin, TX

Contributed Talk: "Characterization of a Clustering Gas Jet for High Energy Density Plasma

Production"

Sept. 2018 6th High Power Laser Workshop

Menlo Park, CA

Contributed Poster: "Isochoric heating of silicon using laser-accelerated proton beams at the Matter in Extreme Conditions instrument at LCLS"

iii Extreme Conditions instrument at ECES

University of Texas Undergraduate Research Forum

Austin, TX

Contributed Poster: "Design and Construction of Electron/Positron Magnetic Spectrometer"

Honors and Awards ____

Scholarships and Prizes

2020–2024 Department of Energy National Nuclear Security Agency Stewardship Science Graduate Fellowship (NNSA SSGF)

The NNSA SSGF provides financial benefits and professional development opportunities to students pursuing a Ph.D. in fields of study that solve complex science and engineering problems critical to stewardship science. Five students selected for 2020 class. (>\$300k award)

2019–2020 National Science Foundation Graduate Research Fellowship (NSF GRF)

The NSF GRFP supports outstanding students pursuing research-based graduate education in NSF-supported STEM fields for up to three years. (\$138k award)

2019 University Co-op Mitchell Award for Undergraduate Academic Excellence

Each spring, UT Austin recognizes five undergraduates for superior scholarly achievement. (\$2.5k award)

2018 Barry M. Goldwater Scholarship

The Goldwater Scholarship recognizes undergraduates demonstrating intellectual intensity in the sciences and potential for a significant future contribution to research. (\$7.5k award)

2018 Alan Kaylor Cline Dean's Scholars Scholarship

Peer-nominated award for students representing the ideals of a Dean's Scholar: academic achievement, research involvement, and commitment to improving the program. (\$3k award)

2018 **Hou-Li Scholarship in Natural Sciences**

Merit scholarship for returning students in the College of Natural Sciences. (\$500 award)

2017, 2018 Renee Wolfe Zelman and Norman Zelman Endowed Scholarship

Merit scholarship for returning students in the College of Natural Sciences. (\$2k total award)

2016–2018 J. David Gavenda Scholarship in Plan II

Merit scholarship for returning students in the Plan II Honors Program double-majoring in the natural sciences. (\$7.9k total award)

2017 Eva Stevenson Woods Endowed Presidential Scholarship

University-wide merit scholarship based on departmental nominations. (\$2.5k award)

2017 Undergraduate Research Fellowship

Funds provided by the UT Office of the Vice President for Research to directly support independent undergraduate research projects. (\$985 award)

2017 Jack Roloson Endowed Presidential Scholarship

Merit scholarship for returning students in the College of Natural Sciences. (\$2.5k award)

2016, 2017 **Abel Family Scholarship in Physics**

Merit scholarship for returning students in the Department of Physics. (\$5k total award)

2016 Dan K. Seilheimer, M.D. Endowed Undergraduate Scholarship

Merit scholarship for returning students in the College of Natural Sciences. (\$1k award)

2015 College of Natural Sciences Outstanding Freshman Scholarship

Merit scholarship to recruit top applicants to the College of Natural Sciences. (\$1k award)

2015 **National Merit Scholarship**

The National Merit Scholarship Program seeks to recognize the most academically gifted high schoolers in the United States. (\$2.5k award)

Additional Honors

2019 UT Austin College of Natural Sciences Dean's Honored Graduate

Award selected through faculty panel vote; limited to less than 1% of the College of Natural Sciences' graduating class.

2019 UT Austin Physics Department Highest Academic Achievement Award

Awarded to the graduating senior with the highest grade point average in the Department of Physics.

2017–2019 UT Austin Junior Fellows

Application-only membership in a small community promoting undergraduate research.

2018 Marshall Scholarship Campus Nominee

Selected by the UT Austin selection committee as a campus nominee for the Marshall Scholarship.

2018 Phi Beta Kappa

Joined during junior year.

2018 Sigma Pi Sigma Physics Honors Society

Joined during junior year.

2018 SLAC SULI Program Ernest Coleman Memorial Award for Scholarship and Citizenship

This award recognizes a SLAC SULI intern who has made a particularly strong contribution to the intern community in addition to demonstrating excellence in research.

2018 College of Natural Sciences Book Award for Academic Excellence

Award based on faculty nominations in recognition of outstanding class performance and passion for learning.

2017–2019 **Distinguished College Scholar**

Earned in recognition of superior academic achievement in both math and science and liberal arts coursework.

2015–2019 **University Honors**

Earned in recognition of academic achievement in both math and science and liberal arts coursework.

Leadership and Activities _

2019- Stanford Science Pen Pals

Stanford University

PEN PAL

Exchanged letters with students attending an underprivileged high school in New Jersey to provide guidance and information about going to college and working in science.

Featured on Ask a Stanford Scientist to provide a scientific point of contact for members of the public with questions about my field.

2019- Stanford Philharmonia

Stanford University

DOUBLE BASSIST

Performed in one to two concerts per quarter as a double bass section member.

2017–2018 **Dean's Scholars Honors Program**

UT Austin

COUNCIL CHAIR

Elected chair of the Dean's Scholars Honors Program governing body. Managed a \$35k budget; planned and coordinated all program events, including dinners, trips, community service and outreach, mentorship, and research events.

2016–2019 **Dean's Scholars Honors Program**

UT Austin

COUNCIL MEMBER

Elected to the Dean's Scholars Honors program governing body. Organized events including program-wide dinners, community-building activities, and a weekly faculty lecture series.

2015–2019 University Orchestra

UT Austin

DOUBLE BASSIST

Performed in two concerts per semester as a double bass principal player or section member.

Service _

2016, 2017 Jean Holloway Award for Excellence in Teaching Selection Committee

UT Austin

COMMITTEE MEMBER

Nominated twice by CNS administration to serve on the selection committee for the College of Natural Sciences' and College of Liberal Arts' Jean Holloway Award for Excellence in Teaching.

2016–2019 College of Natural Sciences Admissions Office

UT Austin

ADMISSIONS AMBASSADOR

Represented the College of Natural Sciences and Dean's Scholars at informational events for prospective students.