Griffin D. Glenn

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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– Aug. 2019 **UT Austin Physics Department, Center for High Energy Density Science** Austin, TX
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– Aug. 2018 **SLAC National Accelerator Laboratory, HEDS Division** Menlo Park, CA
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

C. B. Curry et al., "Optimization of radiochromic film stacks to diagnose high-flux laser-accelerated proton beams," *Review of Scientific Instruments* **91** 093303 (2020)

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 10^{22} W/cm^2," *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*

Non-Refereed **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"

Apr. 2017 **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.