

# Logan Pearce

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## EDUCATION

**UNIVERSITY OF TEXAS AT AUSTIN**  
**BS IN ASTRONOMY (HONORS)**  
**BS IN PHYSICS**  
 Expected May 2019 | Austin, TX  
 Cum. GPA: 3.93 / 4.0

**MA IN EDUCATION**  
 August 2014 | Austin, TX  
 Conc. in Secondary Engineering Ed.  
 Cum. GPA: 3.95 / 4.0

**PURDUE UNIVERSITY**  
**BS IN CHEMISTRY**  
 May 2003 | W. Lafayette, IN  
 Cum. GPA: 3.11 / 4.0

## LINKS

Professional:// [loganpearcescience.com](http://loganpearcescience.com)  
 LinkedIn:// [loganpearce](http://loganpearce)  
 Twitter:// [@loganpearce](http://@loganpearce)  
 Photography:// [loganpearce.com](http://loganpearce.com)

## COURSEWORK

### UNDERGRADUATE

Stars, Galaxies, Planetary Systems  
 Astrophysics, Instrumentation, Research  
 Methods, Observational Methods  
 Vector Calculus, Diff. Eqns, Linear  
 Algebra, Probability, Math Statistics  
 Classical and Quantum Mechanics  
 Electromagnetics and Thermodynamics

## SKILLS

### PROGRAMMING

Python • Numpy/Scipy/Astropy • SQL  
 Familiar:

IDL • Fortran • IRAF • Matlab • LabView

### NON-PROGRAMMING

Precision machining • Writing and  
 presentations • Operation of complex  
 systems

### INTERESTS

travel • photography • backpacking • Vespas •  
 books • writing

## ASTRONOMY RESEARCH

### ORBITAL MOTION OF THE WIDE PMC GSC 6214-210 B | UNIV. OF TEXAS AT AUSTIN

Jan 2017 – current | Austin, TX

- Advisor: **Adam Kraus**
- Measured the orbital motion of wide planetary mass companions for clues to planet formation.

### 1 MILLION STAR TARGET LIST FOR SETI OBSERVATIONS WITH MEERKAT | BERKELEY SETI RESEARCH CENTER

June 2018 – Aug 2018 | Berkeley, CA

- Advisor: **Howard Isaacson**
- Developed the 1 million star target list for Breakthrough Listen project's commensal observations with MeerKAT telescope.

### VIRUS INSTRUMENT, HETDEX PROJECT | UNIV. OF TEXAS AT AUSTIN

Jan 2016 – Dec 2016 | Austin, TX

- Advisor: **Sarah Tuttle** and **Cynthia Froning**
- Assisted in fabrication, calibration, and installation for the VIRUS spectrograph.

### MAPPING THE LIQUIDUS FOR TERNARY MIXTURES AND IMPLICATIONS FOR TITAN | LOWELL OBSERVATORY & NORTHERN ARIZONA UNIVERSITY

Jun 2016 – Aug 2016 | Flagstaff, AZ

- Advisor: **Jennifer Hanley**
- Investigated Titan's hydrocarbon lakes through ice laboratory at NAU
- NSF supported REU

## WORK EXPERIENCE

### UNIV. OF TEXAS AT AUSTIN | RESEARCH ASSISTANT + LAB TECHNICIAN + WRITING CENTER CONSULTANT

August 2015 – Current | Austin, TX

### KEALING MIDDLE SCHOOL | TEACHER, PHYSICS AND ENGINEERING

Aug 2009 – May 2015 | Austin, TX

- Created and implemented accelerated physics curriculum for 6th grade.
- Developed and implemented two engineering elective courses on flight and space exploration.
- 6th grade team leader, 2013-2015.

### US NAVY | OFFICER, NUCLEAR POWER SPECIALIST

Mar 2005 – May 2008 | USS John C. Stennis (CVN-74), Bremerton, WA

- Reactor plant chief operator
- Mechanical maintenance division officer

May 2003 – Mar 2005 | USS Samuel B. Roberts (FFG-58), Mayport, FL

- Electronic warfare division officer
- Bridge and Combat Center watch officer

# PUBLICATIONS

## Refereed Publications

- Logan A. Pearce, Adam L. Kraus, Trent J. Dupuy, Michael Ireland, Aaron C. Rizzuto, Brendan Bowler, Eloise K. Birchall, and Alexander L. Wallace. (2019) ***Orbital motion of the wide planetary-mass companion GSC6214-210 b: No evidence for dynamical scattering*** AJ 157:71, doi: 10.3847/1538-3881/aafacb
- Steckloff, J.K., Soderblom, J.M., Farnsworth, K., Chevrier, V., Hanley, J., Soto, A., Jessica, G., Grundy, W., Pearce, L. (Submitted to Nature Astronomy). ***The Evaporation-Induced Stratification of Titan's Lakes***
- Cook, Jason, et. al. (Submitted to Icarus) ***The Distribution of H<sub>2</sub>O, CH<sub>3</sub>OH, and Hydrocarbon-ices on Pluto: Analysis of New Horizons Spectral Images***

## Non-Refereed Publications

- Logan A. Pearce, Adam L. Kraus, Trent J. Dupuy, Michael Ireland, Aaron C. Rizzuto, and Brendan Bowler., 2019, American Astronomical Society Meeting Abstracts, 233. ***Orbital motion of the wide planetary-mass companion GSC6214-210 b: No evidence for dynamical scattering***
- J. Hanley, J. Groven, W. Grundy, L. Pearce, S. Dustrud, G. Lindberg, S. Tegler. AAS DPS, Knoxville, TN, Oct 2018. ***Characterization of Possible Two Liquid Layers in Titan Seas.***
- Pearce, Logan; Kraus, Adam L., 2018, American Astronomical Society Meeting Abstracts, 231, 148.22. ***Orbital Motion of the Wide Planetary Mass Companion GSC 6214-210 b***
- Hanley, J.; Grundy, W.; Thompson, G.; Pearce, L.; Dustrud, S.; Lindberg, G.; Tegler, S. C.; Roe, H. G. (2017), American Astronomical Society, DPS meeting 49, id.301.02. ***Methane, Ethane, and Nitrogen Stability on Titan and Other Icy Bodies***
- Pearce, Logan; Kraus, Adam L., 2017, American Astronomical Society Meeting Abstracts, 230, 118.05. ***Constraining the allowed orbits of the directly imaged planetary mass companion GSC 6214-210b***
- Hanley, J.; Pearce, L.; Thompson, G.; Grundy, W.; Roe, H; Dustrud, S.; Trilling, D.; Tegler, S. (2017), 48th Lunar and Planetary Science Conference, Contribution No. 1964, id.1686. ***Methane, Ethane, and Nitrogen stability on Titan***

# PRESENTATIONS

## TALKS

- Astronomy Student's Association, University of Texas at Austin, Oct 2018
- Texas Undergraduate Research Symposium, University of Texas at Austin, Oct 2018
- Astronomy Student's Association, University of Texas at Austin, Oct 2017
- Texas Undergraduate Research Symposium, Rice University, Oct 2017
- Gulf Coast Undergraduate Research Symposium, Rice University, Oct 2016
- Fall Undergraduate Research Symposium, University of Texas at Austin, Sep 2016
- Texas Astronomy Undergraduate Research Symposium, Baylor University, Sep 2016
- REU Symposium, Northern Arizona University, Aug 2016

## POSTERS

- 233rd American Astronomical Society Meeting, Seattle, WA, 2019
- UC Berkeley Astronomy Department intern poster session, Univ of California Berkeley, 2018
- College of Natural Sciences Undergraduate Research Forum, University of Texas Austin, 2018
- Star and Planet Formation in the Southwest Conference, Oracle AZ, 2018
- 231st American Astronomical Society Meeting, National Harbor, MD, 2018
- Bash Fest, University of Texas at Austin, 2017
- 230st American Astronomical Society Meeting, Austin, TX, 2017
- College of Natural Sciences Undergraduate Research Forum, University of Texas Austin, 2017

## AWARDS

2018	Jean Perkins Foundation Scholarship	Jean Perkins Foundation Grant for Undergraduate Combat Veterans
2018	Astronaut Scholar	Astronaut Scholarship Foundation
2018	Barry Goldwater Scholar	Barry Goldwater Scholarship and Excellence in Education Foundation
2017	Karl G. Henize Endowed Scholarship	Univ. of Texas at Austin Astronomy Department Award
2017	Chambliss Prize Honorable Mention	230th American Astronomical Society Meeting
2017	J. W. Cox Endowed Scholarship	J. W. Cox Endowment for the Advanced Studies in Astronomy
2017	Award for Excellence in Astronomy and Astrophysics Research	College of Natural Science Undergraduate Research Forum, University of Texas at Austin
2017	Jean Perkins Foundation Scholarship	Jean Perkins Foundation Grant for Undergraduate Combat Veterans
2016	Best Presentation	Fall Undergraduate Research Symposium, Univ. Texas
2016	Honorable Mention	Gulf Coast UG Research Symposium, Rice Univ.
2016	Jean Perkins Foundation Scholarship	Jean Perkins Foundation Grant for Undergraduate Combat Veterans
2015	W. Dawson Sterling Endowed Fellowship	Univ of Texas Board of Regents Award
2009	Teacher of Promise	Kealing MS, Austin TX
2008	US Navy Commendation Medal	USS John C. Stennis (CVN-74)

## SERVICE

2016-2019	Graphics and Merchandise	Astronomy on Tap ATX
2016-2019	UG Representative	University of Texas Astronomy Department
2016-2017	Co-author	White paper for UT Astro Dept external review
2017	Co-founder	Undergraduate Astronomy Journal Club
2018	Peer mentor	Student Veteran Association
2017-2019	Junior Member	American Astronomical Society
2012-2017	Deacon	City Life Church, Austin TX

## REFERENCES

Prof. Adam Kraus	University of Texas at Austin ( <a href="mailto:alk@astro.as.utexas.edu">alk@astro.as.utexas.edu</a> )
Howard Isaacson	University of California Berkeley ( <a href="mailto:hisaacson@berkeley.edu">hisaacson@berkeley.edu</a> )
Prof. Shardha Jogee	University of Texas at Austin ( <a href="mailto:sj@astro.as.utexas.edu">sj@astro.as.utexas.edu</a> )
Dr. Jennifer Hanley	Lowell Observatory ( <a href="mailto:jhanley@lowell.edu">jhanley@lowell.edu</a> )