Logan Pearce

Graduate student | NSF Graduate Fellow | Univ of Arizona & Steward Observatory
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EDUCATION

UNIVERSITY OF ARIZONA
PhD Candidate in Astronomy
Current | Tucson, AZ
Degree expected Spring 2024

UNIVERSITY OF TEXAS AT AUSTIN
BS in Astronomy (Honors)
BS in Physics
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

NAVAL NUCLEAR POWER TRAINING COMMAND
Reactor Plant Operations & Theory
March 2005 - March 2006 |
Charleston, SC & Ballston Spa, NY

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

LINKS

Professional:// loganpearcescience.com
Github:// github.com/logan-pearce/
LinkedIn:// loganpearce
Twitter:// @loganpearce
Photography:// loganpearce.com

WORK EXPERIENCE

UNIV. OF ARIZONA STEWARD OBSERVATORY | Graduate Research Assistant
August 2019 - Current | Tucson, AZ

- PhD candidate in astronomy with specialty in exoplanet direct imaging.
- Completed requirements for a master's degree in astronomy in Nov 2021.
- NSF GRFP fellow.
- Assisted ~20 students with NSF GRFP application preparation as a consultant with the UA GRFP Application Development Program.
- Taught exoplanet-based research projects to 7 student veterans as part of the Warrior Scholar Project in summer 2020 and 2021.
- Founded the Student Veteran Research Network in August 2021.

UNIV. OF TEXAS AT AUSTIN | Research Assistant + Lab Technician + Writing Center Consultant
August 2015 – August 2019 | Austin, TX

- Assisted >250 students on any piece of writing at any stage as a University Writing Center Consultant for 3 semesters.
- Assisted in all aspects of fabrication and testing of the VIRUS spectroscopic instrument for the Hobby Eberly Telescope Dark Energy Experiment for 2 semesters.

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.
- Lead a team of ~20 teachers as 6th grade team leader, 2013-2015.
- Obtained master's degree in engineering education in August 2014.

US NAVY | Officer, Nuclear Power Specialist
Mar 2006 – May 2008 | USS John C. Stennis (CVN-74), Bremerton, WA

- Managed all aspects of reactor plant operations as reactor Propulsion Plant Watch Officer in both at-sea wartime and maintenance conditions.
- Managed a team of 30 mechanics maintaining potentially-contaminated reactor plant systems as Mechanical Maintenance Division Officer.

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

- Managed a team of 10 electronics technicians as Combat Electronics Division Officer.
- Managed all aspects of bridge and combat center operations as Bridge and Combat Center Watch Officer.

PUBLICATIONS

Lead Author

1. **Logan A. Pearce**, Jared R. Males, Alycia J. Weinberger, et al. (2022) ***Companion Mass Limits for 17 Binary Systems Obtained with Binary Differential Imaging***. MNRAS 515:4487P, doi: 10.1093/mnras/stac2056

2. **Logan A. Pearce**, Adam L. Kraus, Trent J. Dupuy, Andrew W. Mann, Daniel Huber. (2021) ***Boyajian's Star B: The co-moving stellar companion to KIC 8462852***. ApJ 909:216, doi: 10.3847/1538-4357/abdd33

3. **Logan A. Pearce**, Adam L. Kraus, Trent J. Dupuy, Andrew W. Mann, Elisabeth R. Newton, Benjamin M. Tofflemire, Andrew Vanderburg. (2020) ***Orbital Parameter Determination for Wide Stellar Binary Systems in the Age of Gaia***. ApJ 894:115P, doi: 10.3847/1538-4357/ab8389

4. **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

Contributing Author

1. Venner, A., Pearce, L., Vanderburg, A. (Submitted to MNRAS). ***An Edge-On Orbit for the Eccentric Long-Period Planet HR 5183 b***. arXiv:2111.03676.

2. Christian, S., Vanderburg, A., et al. (**Pearce, Logan**, 5 of 114) (Accepted to AJ) ***A Possible Alignment Between the Orbits of Planetary Systems and their Visual Binary Companions***, arXiv:2202.00042.

3. Venner, A., Vanderburg, A., Pearce, L. (2021) ***True masses of the long-period companions to HD 92987 and HD 221420 from Hipparcos–Gaia astrometry***, AJ 162:12, doi: 10.3847/1538-3881/abf932

4. Daniel Czech, Howard Isaacson, Logan Pearce, et al. (2021) ***The Breakthrough Listen Search for Intelligent Life: MeerKAT Target Selection***, PASP, 133, 1024, doi: 10.1088/1538-3873/abf329

5. Andrew Vanderburg et al. (**Logan A. Pearce**, 18 of 65) (2020) ***A giant planet candidate transiting a white dwarf*** Nature 585, 363-367, doi: https://doi.org/10.1038/s41586-020-2713-y

6. Elisabeth R. Newton, Andrew W. Mann, Benjamin M. Tofflemire, **Logan A. Pearce** et. al. (2019). ***TESS Hunt for Young and Maturing Exoplanets (THYME) I: A planet in the 45 Myr Tucana-Horologium association*** ApJ 880:17, doi: 10.3847/2041-8213/ab2988

7. L. D. Nielsen, R. Brahm, F. Bouchy, N. Espinoza, O. Turner, S. Rappaport, **L. Pearce**, et al. (2020). ***Three Short Period Jupiters from TESS. HIP 65Ab, TOI-157b, and TOI-169b***. A&A, 639A:76N, doi: 10.1051/0004-6361/202037941

Co-Author

1. Steckloff, Jordan K, et al. (**Pearce, Logan**, 9 of 11) (2020) ***Stratification Dynamics of Titan's Lakes via Methane Evaporation*** PSJ 1:26, doi: 10.3847/PSJ/ab974e

2. Blunt, Sarah, et al. (**Pearce, Logan**, 11 of 13) (2019) ***orbitize!: A Comprehensive Orbit-fitting Software Package for the High-contrast Imaging Community*** AJ 159:89 doi: 10.3847/1538-3881/ab6663

3. Andrew W. Mayo et. al (**Pearce, Logan**, 23 of 30) (2019) ***An 11 Earth-Mass, Long-Period Sub-Neptune Orbiting a Sun-like Star*** AJ 158:165M, doi:10.3847/1538-3881/ab3e2f

4. Andrew Vanderburg, et. al. (**Pearce, Logan**, 36 of 51) (2019). ***TESS SPOTS A COMPACT SYSTEM OF SUPER-EARTHS AROUND THE NAKED-EYE STAR HR 858*** ApJ 881:19

5. Gaidos, E.; Jacobs, T.; LaCourse, D.; Vanderburg, A.; Rappaport, S.; Berger, T.; **Pearce, L.** (7 of 16) (2019) ***Planetesimals around stars with TESS (PAST) - I. Transient dimming of a binary solar analogue at the end of the planet accretion era***

6. Cook, Jason, et. al. (**Pearce, Logan A**, 26 of 28) (2019) ***The Distribution of H2O, CH3OH, and Hydrocarbon-ices on Pluto: Analysis of New Horizons Spectral Images*** Icarus, Volume 331, p. 148-169.

PRESENTATIONS

INVITED TALKS

- Invited speaker, APS Lunch Seminar Univ of Colorado, Oct 2022
- Invited speaker, Gemini Observatory North, Hilo HI, Feb 2019

CONTRIBUTED TALKS

- Student Veterans of America National Convention, Orlando FL, 2022
- Steward Observatory Internal Symposium, Nov 2019
- Texas Undergraduate Research Symposium, University of Texas at Austin, Oct 2018
- 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

OUTREACH TALKS

- Astronomy on Tap Tucson, Dec 2021. Link: https://www.youtube.com/watch?v=y-04uo6zsGE
- Astronomy on Tap ATX, May 2019. Link: https://www.youtube.com/watch?v=KAZRro0Qd7Y&t=291s
- Univ of Texas Astronomy Board of Visitors Winter Meeting, Feb 2019
- Astronomy Student's Association, University of Texas at Austin, Oct 2018
- Astronomy Student's Association, University of Texas at Austin, Oct 2017

POSTERS

- Spirit of Lyot 2022, Leiden Netherlands, 2022
- AAS Division of Dynamical Astronomy, virtual, 2021
- Exoplanets III, virtual, 2020
- 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

WORKSHOPS

- Research Project Leader, Warrior Scholar Project, 24 July - 29 July 2022
- PhD and Grad School Basics, SVRN (virtual), June 2022
- Resume/CV Workshop, UA VETS Center, Jan 2022
- Graduate School Application, UA VETS Center, Fall 2021
- Research Project Leader, Warrior Scholar Project, 25 July - 30 July 2021
- Research Project Leader, Warrior Scholar Project, 21 June - 26 June 2020

OBSERVING TIME AWARDED

As PI

- MagAO-X 2022B: 18 hours
- MagAO-X 2022A: 6 hours
- Gemini/NIFS: 2 hours

AWARDS AND FELLOWSHIPS

GRADUATE

2021	Travel Grant	UArizona Graduate and Professional Student Council
2019	Graduate Research Fellowship	National Science Foundation

UNDERGRADUATE

2019	Dean's Honored Graduate	Univ of Texas College of Natural Sciences
2019	George Mitchell Award	Univ of Texas Co-op
2019	Ralph Cutler Green Endowed Scholarship	Univ of Texas Astronomy/ McDonald Observatory Board of Visitors
2018	Astronaut Scholar	Astronaut Scholarship Foundation
2018	Barry Goldwater Scholar	Barry Goldwater Scholarship and Excellence in Education Foundation
2018	Jean Perkins Foundation Scholarship	Jean Perkins Foundation Grant for Undergraduate Combat Veterans
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

OTHER

2009	Teacher of Promise	Kealing MS, Austin TX
2008	US Navy Commendation Medal	USS John C. Stennis (CVN-74)

SERVICE

2021-	Founder	Student Veterans Research Network
2020-	Research Project Leader	Warrior Scholar Project
2020-2021	Liaison	Steward Observatory DEI Mentoring Task Force
2019-	Co-host/ organizer	SpaceDrafts (Astronomy on Tap Tucson)
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

Dr. Jared Males	Steward Observatory, Univ of Arizona (jrmales@email.arizona.edu)
Dr. Adam Kraus	University of Texas at Austin (alk@astro.as.utexas.edu)
Howard Isaacson	University of California Berkeley (hisaacson@berkeley.edu)
Dr. Shardha Jogee	University of Texas at Austin (sj@astro.as.utexas.edu)