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Interests

ASTRONOMY: Transients, core-collapse supernovae, progenitors of supernovae, stellar evolution, AGB & post-AGB stars, spectroscopic modeling, dark energy & cosmology, computational astrophysics, asteroseismology.

ADVOCACY: Breast cancer, genetic testing, the BRCA mutation, women's health, equity in healthcare and in science.

Education

Ph.D. in Astrophysics (expected) May 2022
University of California, Berkeley
Advisor: Dr. Peter Nugent

M.S. in Astrophysics May 2019
University of California, Berkeley

B.S. in Physics & Astronomy Honors May 2016
The University of Texas at Austin (UT)
Dean's Scholars Honored Graduate
Advisor: Dr. J. Craig Wheeler

Appointments

NSF Graduate Research Fellow (under Dr. P. Nugent)	UC Berkeley, 2017 –
Summer Undergraduate Research Fellow (under Dr. A. Soderberg)	Harvard, Summer 2015
Undergraduate Research Assistant (under Dr. J. Craig Wheeler)	UT, 2012 – 2016
McDonald Observatory Intern	Summer 2013

Selected Honors & Awards

– some funded

Arab American 40 Under 40 Awardee	Fall 2020
BBC 100 Women	Spring 2020
National Science Foundation (NSF) Graduate Research Fellowship*	Spring 2018
Commencement Speaker, UT College of Natural Sciences	Spring 2016
Dean's Honored Graduate, UT College of Natural Sciences	Spring 2016
UT Research Travel Scholarship*	Fall 2016
Karl G. Henize Endowed Scholarship Award*	2015
Harvard NCRC Innovation Challenge Winner*: *Gender Inequality & Educational Opportunity*	2015
John W. Cox Endowment for the Advanced Studies in Astronomy*	2014
Dean's Scholars Honors Program	2013 – 2016
University Honors	2013 – 2015
NSF Astronomy Scholarship* (Declined)	2011

NOTE: any activities that were affected by COVID-19 & rescheduled for a future date are marked by **[COVID-19]**
*included prize or monetary award

Awarded Telescope Time

Lick Observatory, CA – Shane 120-in telescope
— **KAST Spectrograph** ..... **12 nights**
  ∘ Primary or secondary science lead ..... 12 nights

McDonald Observatory, TX – 0.8-meter telescope
— **Robert G. Tull Coudé Spectrograph** ..... **2 nights**
  ∘ Contributing scientist ..... 2 nights

Public Data – significant experience with data from ZTF, iPTF, PTF

Supercomputing Time

PI: NERSC Cori/KNL ..... 17K CPU-hours

Selected Outreach Media

– Astronomy –

Show host for Seeker's *Constellations*	Jan 2021
Audience: 5 million, w/ 55+ million views/mo	
Science communicator	2018 –
Audience: Twitter: 100K+, Instagram: 16K+	
NPR Short Wave *Space Week: The Mystery of Dark Energy*	Aug 2020
Astronomy.com *When Betelgeuse goes supernova, what will it look like...*	Feb 2020
Space.com *Will Betelgeuse Explode?*	Jan 2020
BBC News *The Power to Make a Star Explode*	Jan 2020
National Geographic *A Giant Star is Acting Strange...*	Dec 2019

– Breast Cancer –

POPSUGAR 4 *Women Get Real About Numbness Post Mastectomy*	Oct 2020
BBC 100 Women *Breast Cancer: I have Sensation in my Breasts Again*	March 2020
BBC Women's Hour *Preserving Breast Sensation After Surgery*	March 2020
Refinery29 *I Am 26 & Getting A Double Mastectomy — Truth Told*	Jan 2020
SF Chronicle *I lost my breasts, but an early test saved my life*	Nov 2019
FOX News *Sensation in Double Mastectomies*	Nov 2019

Selected Conferences & Presentations

Talks

Invited: (anticipated) Royal Astronomical Society of Canada	21 Jan 2021
Invited: (keynote, anticipated) Women in Space Conference (canadian space agency, canada) **[COVID-19]**	May 2021
Invited: Students for the Exploration and Development of Space (SEDS) (berkeley, ca)	16 Nov 2020
Invited: Graduate Admissions Panel (berkeley, ca)	22 Oct 2020
Invited: QuarkNet Conference (berkeley, ca)	9 July 2020
Invited: NSF Education & Outreach Panel (berkeley, ca)	8 July 2020

Title: *Bringing Science to the Public in Non-Traditional Venues*

Invited: CraigFest 2020 Conference (AUSTIN, TX) **[COVID-19]**	25 May 2020
Invited: University of Pennsylvania Astronomy Society (BERKELEY, CA)	17 April 2020
Invited: *Astronomy on Tap* (AUSTIN, TX) **[COVID-19]** (recording)	31 March 2020

Undergraduate Presentations

Poster: American Astronomical Society (ORLANDO, FL)	Spring 2016
Talk: Harvard REU Intern Symposium (CAMBRIDGE, MA)	Summer 2015
Talk: (PLENARY) The National Collegiate Research Conference (NCRC) (CAMBRIDGE, MA)	Spring 2015
Poster: McDonald Observatory Board of Visitors Meeting (AUSTIN, TX)	Spring 2015
Talk: UT Undergraduate Women in Physics (AUSTIN, TX)	Spring 2015
Talk: Dean's Scholars ReSULTS (AUSTIN, TX)	Spring 2015
Talk: Texas Astronomy Undergraduate Research Symposium (TAURS) (AUSTIN, TX)	Fall 2014
Talk: Stellar Activity, McDonald Observatory (FORT DAVIS, TX)	Summer 2013

PUBLICATIONS

REFEREED PUBLICATIONS

First Author

The Betelgeuse Project II: Asteroseismology // arXiv:1805.10347 **(5 citations)**
Monthly Notices of the Royal Astronomical Society, Volume 479, Issue 1, pgs. 251–261 (2018)
Nance, S, Sullivan, J.M., Diaz, M. et. al.

Co-Author

The Betelgeuse Project III: Merger Characteristics // arXiv:2010.08880
Accepted for publication
Wheeler, J.C., **Nance, S.**, Diaz, M. et. al.

The Betelgeuse Project: Constraints from Rotation // arXiv:1611.08031 **(11 citations)**
Monthly Notices of the Royal Astronomical Society, Volume 465, Issue 3, pgs. 2654–2661 (2017)
Wheeler, J.C., **Nance, S.**, Diaz, M. et. al.

BOOKS

First Author

Starstruck: A Memoir of Astrophysics & Finding Light in the Dark (Forthcoming, 2023)

Little Leonardo Astronomy (Forthcoming, Fall 2022, GIBBS-SMITH PUBLISHING)

TEACHING EXPERIENCE

Teaching Assistant: *The Planets* **[COVID-19]**	UC Berkeley, Spring 2021
Teaching Assistant: *MESA Summer School*	Beijing, China, Spring 2018
Graduate Student Instructor: *Stellar Astrophysics*	UC Berkeley, Spring 2018
Graduate Student Instructor: *Introduction to Astronomy*	UC Berkeley, Fall 2017

Undergraduate Teaching Assistant: *Introduction to Astronomy*	UT, Fall 2015
Undergraduate Teaching Assistant: *Modern Physics Lab*	UT, Fall 2015
Tutor: *English, Math, & Physics*	2011 -

Programming

Computer Languages:	`Python`, LaTeX, Fortran, Mathematica, bash, git
Parallel Computing:	MPI, OpenMP, `Python` multiprocessing
Machine Learning:	PyTorch, TensorFlow, SciPy, Keras