Nicholas Saunders

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1 4249 9th Ave NE Apt. 4 Seattle, WA 98105

EDUCATION

University of Washington, Seattle, WA

Sept 2013 -

- **B.S.** Astronomy and Comprehensive Physics *Honors in Astronomy*
- B.A. Comparative Literature: Cinema Studies
- Astronomy GPA: 3.7/4.0 Comparative Literature GPA: 3.9/4.0

Relevant SKILLS

Data reduction and photometric analysis using IRAF and PyRAF; programming with python, java, Mathematica, LaTeX; public presentation of astronomy and physics

RESEARCH EXPERIENCE

LSST Citizen Science, Student Researcher

June 2017 -

University of Washington, Seattle, WA – advisor: Andrew Connelly

Creating online project interface to identify and characterize transient objects in LSST data using Zooniverse citizen science web portal

Detection of Transiting Exoplanets, Student Researcher

Jan 2016 -

University of Washington, Seattle, WA – advisors: Rory Barnes, Rodrigo Luger

Developing python algorithms to reduce instrumental noise for Kepler/K2 photometry and exoplanet transit detection

Planetary Science Intern

Apr 2011 – June 2013

The Bear Fight Institute, Winthrop, WA – advisors: Tom McCord, Bernard Nordmann

— Generated mosaicked satellite-imagery maps for surface of Mars and the Moon; Analyzed composition of the Moon's surface using reflectance spectroscopy

ACADEMIC EMPLOYMENT

Teaching Assistant, Astronomy Department University of Washington, Seattle, WA

Mar 2018 -

— Lead multiple weekly in-class sections, teach introductory astronomy material, collaborate with team of T.A.s and professor, assist students in lab assignments

Student Assistant, Astronomy Department

Jan 2017 - Mar 2018

University of Washington, Seattle, WA

Graded assignments for upper-division astronomy course, led planetarium presentations for students

Observing EXPERIENCE

Manastash Ridge Observatory, Ellensburg, WA

July 2016

— Observed 10 full nights on 0.75m telescope, completed multi-band optical photometry and imaging, reduction and analysis with IRAF and python

AWARDS

UW Astronomy Department "Kudos of the Quarter"	Feb 2018
Washington Newspaper Publishers Association	Oct 2016
— 1 st Place: Best Video — 1 st Place: Best Online Photo Essay	
Washington NASA Space Grant Scholarship	Sept 2013
Irving and Louise Donnergaard Endowment	Sept 2013
National Merit Scholarship Program, Commended Student	Sept. 2012

PUBLICATIONS N. Saunders, R. Luger, R. Barnes, (2018, in progress) Pushing the Limits of De-Trending with PLD.

> R. Luger, E. Kruse, D. Foreman-Mackey, E. Agol, N. Saunders (2017) An Update to the EVEREST K2 Pipeline: Short Cadence, Saturated Stars, and Kepler-like Photometry down to $K_p = 15$. arXiv:1702.05488

TALKS	Astronomy on Tap, Seattle, WA	25 Apr 2018	
	— N. Saunders, "Putting the Science in Science Fiction"		
	231st American Astronomical Society Meeting, Washington DC	12 Jan 2018	
	— N. Saunders, R. Luger, "De-Trending K2 Exoplanet Targe	ts for High Spacecraft	
	Motion"		
	Astrobiology Mini Talks, Museum of Flight, Seattle, WA	14 Oct 2017	
	— N. Saunders, "The Search for Habitable Worlds"	40.0	
	Kepler/K2 Guest Observing Office, Mountain View, CA	12 Oct 2017	
	— N. Saunders, R. Luger, "Sputtering Effects on K2 Systema UW Undergraduate Research Symposium, Seattle, WA	tics Removal" 19 May 2017	
	— N. Saunders, "Effects of Pixel Sensitivity Variation on K2	Exoplanet Detection"	
	Washington NASA Space Grant Orientation, Seattle, WA	Apr 2015 - Apr 2017	
	— Presented research and led planetarium shows for prospect World Space Week, Seattle, WA	tive UW students June 2016	
	Multiple public planetarium shows		
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SERVICE & OUTREACH	Undergraduate Liaison, UW Astronomy Faculty Board	Sept 2017 –	
	— Attend faculty meetings, report undergraduate concerns, communicate with both		
	faculty and students	A 0015	
	Volunteer, Total Solar Eclipse NASA Outreach Event	Aug 2017	
	— Organized educational outreach activities at a middle scho Springs Reservation, OR, assembled and managed telescop planetary observation		
	Volunteer Organizer, Astronomy on Tap Seattle	Jan 2017 –	
	— Assist with setup and organization of astronomy outreach		
	Volunteer Presenter, UW Planetarium	Nov 2015 –	
	— Perform multiple shows each month for public and private		
GROUPS	Pulsar Kicks, UW Intramural Soccer	Mar 2017 - June 2017	
	UW League of Astronomers	Jan 2017 -	
	SPACE (Students Pursuing Academic and Celestial Exploration	Nov 2016 –	
	Washington NASA Space Grant Consortium	Sept 2013 –	
OTHER	Barista – Tea Republik, Seattle, WA	May 2015 - Mar 2017	
EMPLOYMENT	Busser – Sun Mountain Lodge, Winthrop, WA	Sept 2012 – Aug 2013	
	Swim Instructor and Lifeguard – Wagner Pool, Twisp, WA	Jun 2010 – Aug 2012	

References available upon request.