SPENCER SCOTT

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EDUCATION

University of Arizona Aug. 2019 - Present
Tucson, AZ
PhD. Student, Astronomy & Astrophysics

Harvard University Aug. 2015 - May 2019
Cambridge, MA
AB Astrophysics and Physics with High Honors. Minor in Danish.

RESEARCH AND TEACHING EXPERIENCE

Center for Astrophysics — Harvard & Smithsonian
Undergraduate Research-Senior Thesis Sept. 2018 - Present

· Characterizing the shapes of dark matter halos in large N-body simulations with Benedikt Diemer.

Undergraduate Research-Type IIP Supernovae in Low-Metallicity Galaxies June 2017 - Dec 2018

· Analyzed light curves of type IIP supernovae in dwarf galaxies with Matt Nicholl.
· Developed a Python package to interface with data from the Open Supernova Catalog.

Undergraduate Research-Junior Paper: The Flare Size Distribution of 3C 273 Sept. 2017 - Dec. 2017

· Developed algorithms to utilize Digital Access to a Sky Century at Harvard (DASCH) data with Josh Grindlay.
· Utilized algorithms to detect and quantify long and short timescale flaring events in the active galactic nucleus 3C 273.

University of Florida
Summer Undergraduate Research at Florida (SURF) May 2018 - Present

· Developing a software package which utilizes Markov Chain Monte Carlo methods to improve measurements of dust temperature within galaxies with Desika Narayanan and George Privon.

Brother Rice High School
Teaching Assistant Sept. 2014 - May 2015

· Taught review sessions, designed exams, and graded homework assignments for an advanced freshman math course.

PUBLICATIONS

Scott, Nicholl, Blanchard, Gomez, and Berger 2018. *Bright Type IIP Supernovae in Low-Metallicity Galaxies.* The Astrophysical Journal Letters. arXiv:1812.06559.

Privon, Scott, and Narayanan, in prep. *An Improved Method for Far Infrared Galaxy SED Fitting.*

AWARDS

College of Science Fellow, University of Arizona College of Science. Aug. 2019-Present

PRESENTATIONS

Splashback Workshop, SLAC National Accelerator Laboratory. May 2019. *The Shape of the Splashback Radius from Dark Matter Particle Dynamics*

Bachelor's Thesis Presentation, Center for Astrophysics — Harvard & Smithsonian. Apr. 2019. *Measuring the Shapes of Dark Matter Halos using Particle Dynamics*

Poster presentation at AAS January 2019. *An Improved Method for Far Infrared Galaxy SED Fitting.*

Presented findings of Junior Paper at the Center for Astrophysics — Harvard & Smithsonian. Dec. 2017. *The Flare Size Distribution of 3C 273.*

TECHNICAL SKILLS

Programming:	Python, C/C++, Mathematica, MATLAB, SQL, high performance computing
Operating Systems:	Mac OS X, Ubuntu, Red Hat Windows 10/7/Vista/XP
Image Processing:	IRAF, DS9, MaximDL, DeepSkyStacker

FULL TIME NON-ACADEMIC WORK EXPERIENCE

Bartender, Cambridge Queen's Head Pub	Sept 2018 - Apr 2019
Head Trucker, Harvard Dorm Crew	May 2018 - June 2018
Resident Assistant, Harvard Summer School	June 2017 - Aug. 2017
Trucker, Harvard Dorm Crew	May 2017 - June 2017
Freelance House Painter	May 2016 - Aug 2016
Maintenance, Mobility Systems and Solutions	May 2015 - Aug. 2015

EXTRACURRICULAR ACTIVITIES

Member, Harvard Society of Physics Students
3 year member, Harvard Men's Varsity Volleyball
1 year member, Harvard Varsity Football
Harvard Shotokan Karate President, May 2016-May 2018