Keyan Gootkin

goot1024@uw.edu | 253.948.6121 | Skype Name: keyangootkin

EDUCATION

UNIVERSITY OF WASHINGTON

BS in Astronomy and Physics

Expected June 2021 | Seattle, WA

Cum. GPA: 3.7

College of Arts and Sciences

SKILLS

PROGRAMMING

Python

Including: Matplotlib • Numpy • Astropy • Pandas • Jupyter Lab

Familiar:

Unix • SQL • Mathematica • Matlab • Git

COMMUNICATION

Presentation Software

PowerPoint • Prezi • Keynote • LaTeX

Public Speaking

Trained on UW Planetarium • Public Lectures at Theodore Jacobsen Observatory • Research Presentation at UW Undergraduate Research Symposium

Poster Presentations

• 2018 NASA Goddard Intern Poster Session

• 2018 Astro NWxSW - Regional Astronomy Conference

• 2019 233rd Meeting of the American Astronomical Society

SCIENTIFIC

Operation of Scientific Equipment

Compound & Disecting Microscopes • Consumer Grade Manual and Computerized Telescopes • Limnology & Water Quality Equipment

RELEVANT COURSEWORK

Will be completed as of summer 2019

PHYSICS

Thermal Physics • Quantum Physics • Particles & Symmetries • Mathematical Physics (2 Quarters) • Electromagnetism • Mechanics

ASTRONOMY

Contents of the Galaxy (Stellar Astrophysics) • Extragalactic Astronomy & Cosmology • The Solar System • Programming for Astronomical Applications

MATHEMATICS

Integral & Derivative Calculus • Vector Calculus • Advanced Multivariable Calculus • Differential Equations • Matrix Algebra with Applications

RESEARCH

UW MASSIVE STARS GROUP | Undergraduate Researcher

Nov 2017 – Present | Seattle, WA

Worked with Trevor Dorn-Wallenstein and Dr. Emily Levesque to look for evidence of asteroseismic occilations in the Wolf-Rayet star WR-124 using high-precision time-series photometry from the ARCTIC CCD camera at the Apache Point Observatory in New Mexico

Jan 2018 - Present | Seattle, WA

Analyzed over 10 years of spectropolarimetric data of the Luminous Blue Variable (LBV) star P Cygni. This type of data can be used to constrain the geometry of the star's circumstellar environment. Our work has shown evidence of asphericity at the base of the wind, and challenges assumptions made about previously used methods for determining the interstellar polarization.

NASA GODDARD | Research Intern

June 2018 - Present | Greenbelt, MD

Created a benchmark data-set of coronal mass ejection (CME) measurements for use in CME propagation model validation. Through the creation of this data-set we analyzed the spread in measurements of CMEs.

WORK EXPERIENCE

NASA GODDARD | Space Weather Forecasting Intern

June 2018 - August 2018 | Greenbelt, MD

Received intense training and experience in Space Weather Forecasting at the Community Coordinated Modeling Center at the NASA Goddard Space Flight Center. Training included: Identifying space weather events, working modeling software, and making predictions in order to protect NASA solar system missions from the harmful effects of space weather events.

AWARDS

2018	College of Arts and Sciences Dean's List (Autumn and Winter Quarters)
2018	Washington State Opportunity Scholar
2017	1st Place Team Captain - NOSB Orca Bowl

EXTRA-CURRICULARS

2017	Member	UW League of Astronomers
2016	Founder & President	SAMi Astronomy Club