

CHER SCARLETT

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EDUCATION

- 2026 **ORANGE COAST COLLEGE** GPA: 4.0
May A.S., Physics, Mathematics, Astronomy, & Earth Science; A.A. Liberal Arts
|
2024 **Extracurriculars:** Honors Program, Astronomy Club (*Treasurer*), STEM Club (*Outreach Manager*), MESA, EOPS, Math & Science Club (*President*), ΦΘΚ (*Phi Theta Kappa*), Simulating Extreme Spacetimes (SXS) group
Professional Memberships: Institute of Physics, Society of Physics Students, American Physical Society, American Meteorological Society, American Geophysical Union

Includes enrollment at Santa Barbara City College and Coast Community College District schools.

SKILLS

Python | Java | Groovy | Ruby | PHP | C | JavaScript | CSS | HTML | IDL | Fortran
LaTeX | Mathematica | MATLAB | Jupyter Notebooks | AstroImageJ | ArcGIS | PyTorch

RESEARCH EXPERIENCES

- 2026 **CUESTA COLLEGE**
Advisor: Dr. James Eickemeyer
- 2025 **INSTITUTE FOR STUDENT ASTRONOMICAL RESEARCH (INSTAR)**
Las Cumbres Observatory (LCO) Network
Astronomy Research Seminar | Advisor: Dr. Rachel Freed
- 2025 **NASA JET PROPULSION LABORATORY (NASA-JPL)**
NASA Juno Mission
Analysis and Archiving of Near- and Mid-Infrared Observations of Outer Planet Atmospheres
Planetary and Exoplanetary Atmospheres Group
Student Independent Research Internship (SIRI) | Advisor: Dr. Glenn S. Orton
- 2025 **CALIFORNIA INSTITUTE OF TECHNOLOGY (CALTECH)**
| *NASA-JPL Lunar Trailblazer Mission*
2024 *Planetary Sciences Department*
Research Assistant, Science Communication Intern | Advisor: Dr. Bethany Ehlmann
- 2025 **ORANGE COAST COLLEGE**
Compact Objects and Gravitational Waves | Independent Study | Advisor: Prof. Jessica Asbell

ACADEMIC & WORKSHOP EXPERIENCES

- 2025 **NASA AI/ML SCIENCE AND TECHNOLOGY INTEREST GROUP**
PyTorch and Auto Differentiation Lecture
- 2025 **COMPUTATIONAL RESEARCH ACCESS NETWORK | BRYN MAWR | NSF**
Computational Research Methods for Plasma Physics & Sciences Virtual Seminar
Magnetohydrodynamics with FLASH, Monte Carlo Method, & Particle-in-Cell Tracks

- 2024 UNIVERSITY OF ILLINOIS | GRAVITY THEORY TRUST**
EFTs, Gravity, and Fluid Dynamics: Progress, Challenges, and Emerging Opportunities Workshop
- 2024 CALTECH | NASA EXOPLANET SCIENCE INSTITUTE (NEXSCI)**
Sagan Exoplanet Summer Workshop
Advances in Direct Imaging: From Young Jupiters to Habitable Earths
- 2024 MIAMI UNIVERSITY | NSF | EARTHSCOPE CONSORTIUM**
Seismology Skill Building Workshop
- 2024 QUEEN'S UNIVERSITY | CERN**
The 6th Summer Particle Astrophysics Workshop (EIEIOO)
- 2024 ARIZONA STATE UNIVERSITY | NASA**
Lucy Student Pipeline Accelerator and Competency Enabler (L'SPACE) Academy
NASA Proposal Writing and Evaluation Experience (NPWEE)
- 2024 NASA**
NASA Community College Aerospace Scholars (NCAS)
- 2003 FRED HUTCHINSON CANCER CENTER | UNIVERSITY OF WASHINGTON**
HutchLab | High School Human Genome Project

OBSERVATION EXPERIENCES

- 2025 Caltech Palomar Observatory - Hale Telescope** *Palomar Mountain, CA*
4 nights; 5.1 m; 1 - 2.5 μ m (PHARO)
Observing Jupiter in Support of Juno Mission (NASA-JPL)
- 2025 Las Cumbres Observatory (LCO) - Teide Observatory** *Tenerife, ES*
2 nights; 0.35 m; 0.4 - 0.7 μ m (QHY600)
Astrometry of double stars
- 2025 LCO - South African Astronomical Observatory** *Sutherland, ZA*
1 nights; 0.35 m; 0.4 - 0.7 μ m (QHY600)
Astrometry of double stars
- 2025 NASA Infrared Telescope Facility (IRTF)** *Mauna Kea, HI*
8 nights; 3.2 m; 0.8 - 5.3 μ m (SPEX & MIRSI)
Observing Jupiter in Support of Juno Mission
- 2025 Lockheed Martin Ignite Ground System (IGS)** *Waterton, CO*
4 nights; 8-9 kHz
Monitoring for Lunar Trailblazer (LTB) Signal
- 2025 Fukui University of Technology (FUT) Awara Space Center** *Fukai, JP*
2 nights; 8-9 kHz
Monitoring for Lunar Trailblazer (LTB) Signal
- 2025 Australia Telescope National Facility** *New South Wales, AU*
6 nights; 8-9 kHz (Mopra)
Monitoring for Lunar Trailblazer (LTB) Signal

EMPLOYMENT EXPERIENCES

2025	ORANGE COAST COLLEGE PLANETARIUM	<i>Costa Mesa, CA</i>
<i>May</i>	<i>Presenter</i>	
2024		

TEACHING & TUTORING

2025	EARTHSCOPE CONSORTIUM MIAMI UNIVERSITY	<i>Miami, OH</i>
<i>September</i>	<i>Teaching Assistant</i>	
	<i>Seismology Skill Building Workshop</i>	
<i>May</i>		
2018	UNIVERSITY OF WASHINGTON	<i>Seattle, WA</i>
<i>May</i>	<i>Adjunct Instructor</i>	
	<i>Introductory Web Development (Extension)</i>	
<i>January</i>		

ENGINEERING

2023	CONTROLZEE, INC	<i>San Jose, CA</i>
<i>April</i>	<i>Senior Software Engineer</i>	
2022		
<i>March</i>		
2021	APPLE, INC	<i>Cupertino, CA</i>
<i>November</i>	<i>Principal Software Engineer, Global Security Tools</i>	
2020		
<i>April</i>		
2020	WEBFLOW	<i>San Francisco, CA</i>
<i>April</i>	<i>Senior Software Engineer, Design System & Core Engine</i>	
2019		
<i>April</i>		
2019	STARBUCKS COFFEE COMPANY	<i>Seattle, WA</i>
<i>April</i>	<i>Lead Software Engineer, Web & Mobile</i>	
2017		
<i>November</i>		
2017	WORLD WIDE TECHNOLOGY	<i>St. Louis, MO</i>
<i>August</i>	<i>Senior Software Engineer</i>	
2016		
<i>August</i>		
2016	ACTIVISION BLIZZARD	<i>Irvine, CA</i>
<i>August</i>	<i>Software Engineer, Web & Mobile</i>	
2015		
<i>August</i>		

2015	USA TODAY	<i>McLean, VA</i>
<i>August</i>	<i>Senior Developer, New and Emerging Technologies</i>	
2011		
<i>November</i>		
2011	NEUTRINO, INC	<i>Seattle, WA</i>
<i>November</i>	<i>Front End Developer</i>	
2008		
<i>January</i>		
2008	LUXURYREALESTATE.COM	<i>Seattle, WA</i>
<i>January</i>	<i>Front End Developer</i>	
2007		
<i>May</i>		

VOLUNTEER EXPERIENCES

2021	COWORKER SOLIDARITY FUND	<i>Annapolis, MD</i>
<i>October</i>	<i>Committee Member</i>	
present		
2025	COMPUTATIONAL RESEARCH ACCESS NETWORK	<i>Fullerton, CA</i>
<i>October</i>	<i>Teaching Assistant</i>	
2025	MESA STEM DAY	<i>Newport Beach, CA</i>
<i>April</i>	<i>Workshop Assistant</i>	
2024	MESA CAMPUS COUNCIL	<i>Newport Beach, CA</i>
<i>December</i>	<i>Panelist</i>	
2024	DEMOCRATIC NATIONAL COMMITTEE	<i>Washington, DC</i>
<i>November</i>	<i>Phone Bank Operator</i>	
2024	NEWPORT-MESA COLLEGE & CAREER FAIR	<i>Costa Mesa, CA</i>
<i>October</i>	<i>Booth Operator for Coastline College & MESA</i>	
2024	EXPLORE CALTECH	<i>Pasadena CA</i>
<i>September</i>	<i>Booth Operator for Pasadena City College Physics & Astronomy</i>	
2024	BOLSA CHICA CONSERVANCY	<i>Huntington Beach, CA</i>
<i>May</i>	<i>Invasive Species Removal</i>	
2024	SAN DIEGO COAST KEEPER	<i>San Diego, CA</i>
<i>May</i>	<i>Water Quality Testing</i>	
2023	SURFRIDER FOUNDATION	<i>San Clemente, CA</i>
<i>August</i>	<i>Beach Cleanup</i>	
2015	ORANGE COUNTY PROBATION DEPARTMENT	<i>Santa Ana, CA</i>
<i>August</i>	<i>At-risk youth mentor (OC GRIP)</i>	

2015 **MINDMAKERS**
August *Youth mentor & web developer*

Pasadena, CA

AWARDS & SCHOLARSHIPS

2025	COASTLINE COLLEGE <i>President's List (Fall)</i>	Fountain Valley, CA
2025	SANTA BARBARA CITY COLLEGE <i>President's List (Fall)</i>	Santa Barbara, CA
2025	WOMEN'S INDEPENDENCE SCHOLARSHIP PROGRAM <i>Doris Buffett Independence Scholar</i>	Wilmington, NC
2025	AMERICAN INSTITUTE OF PHYSICS <i>TEAM-UP Together Scholar</i>	College Park, MD
2025	COASTLINE COLLEGE <i>Honor's List (Summer)</i>	Fountain Valley, CA
2025	ORANGE COAST COLLEGE <i>Garrison Fellow</i>	Costa Mesa, CA
2025	COMMUNITY COLLEGE LEAGUE OF CALIFORNIA <i>All-California Academic Award, First Team (unordered top 20 students)</i>	Sacramento, CA
2025	COASTLINE COLLEGE FOUNDATION <i>Associated Student Government Career & Technical Merit Scholarship</i>	Fountain Valley, CA
2025	COASTLINE COLLEGE FOUNDATION <i>Herman Tate Endowment</i>	Fountain Valley, CA
2025	JEANNETTE RANKIN FOUNDATION	Athens, GA
2024	<i>Jeannette Rankin National Scholar</i>	
2025	NATIONAL SCIENCE FOUNDATION	Alexandria, VA
2024	<i>S-STEM Scholar (Coastline College)</i>	
2024	COASTLINE COLLEGE <i>Honor's List (Fall)</i>	Fountain Valley, CA
2024	ORANGE COAST COLLEGE FOUNDATION <i>Peter Christian Hernandez Memorial Scholarship Award</i>	Costa Mesa, CA
2024	ORANGE COAST COLLEGE <i>Honor's List (Spring)</i>	Costa Mesa, CA
2024	GOLDEN WEST COLLEGE <i>Honor's List (Spring)</i>	Huntington Beach, CA

PUBLICATIONS

Scarlett, C. (2025). Lunar Trailblazer Interactive Model [Computer software]. *California Institute of Technology*.
<https://trailblazer.caltech.edu/spacescraff/index.html>

Scarlett, C. (2025). Water into Doom: Balancing AI with Climate Action & Environmental Costs at the Water-Energy Nexus. *The Honors Transfer Council of California Building Bridges Research Conference*.

Scarlett, C. (2025). Emmy Noether: A Woman on the Edge of [Space]Time. *Academia*.
https://www.academia.edu/144259985/Emmy_Noether_A_Woman_on_the_Edge_of_Space_Time

Scarlett, C. (2024). Remote seismology correlation and Mount St. Helens volcanology. *Seismology Skill Building Workshop*.
https://nbviewer.org/urls/www.iris.edu/hq/files/short_courses/2020/ssb/mt-rainier-seismicity.ipynb

Scarlett, C. (2024, July 29). *A case of the blues: Is Overexposure to Artificial Light Causing a Mental Health Crisis?*? Esri. <https://storymaps.arcgis.com/stories/e236a32458bb4b7db87171f6a0305d8a>

Carlson, G., Roginsky, J., & Scarlett, C. (2022, February 6). Washington can be a leader on protecting sexual harassment, assault survivors. *The Olympian*.
<https://www.theolympian.com/opinion/op-ed/article258066068.html>

Scarlett, C. (2019, March 12). Creating a Spotify-powered app using Nuxt.js. *Smashing Magazine*.
<https://www.smashingmagazine.com/2019/03/spotify-app-vue-nuxt-javascript/>

Scarlett, C. (2008). sIFRvault [Computer software].