

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, American Mathematical Society

Includes enrollment at other California Community Colleges.

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].