

CHER SCARLETT

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EDUCATION

2026 CALIFORNIA COMMUNITY COLLEGE CONSORTIUM

May Orange Coast | Golden West | Coastline | Lake Tahoe | Irvine Valley | Santa Barbara | Porterville | LA Harbor

| MAJOR: Physics, Mathematics, & Astronomy

2024 CLUBS: Astronomy Club (*Treasurer*), STEM Club (*Outreach Manager*), MESA, Math &

January Science Club (*President*), Women for Success

SOCIETIES: $\Phi\Theta\K$, $\text{AT}\Sigma$, $\Sigma\text{A}\Pi$, Society of Physics Students, American Physical Society, American Nuclear Society, American Geophysical Union, STEP UP Community, American Association of University Women

GPA: 4.0; *With Honors*

RELEVANT COURSEWORK

Introductory Astronomy (Honors) | Cosmology | Machine Learning for Physics & Astronomy | Single (Honors) & Multivariable Calculus | Mechanics of Solids & Fluids | Heat, Light, & Modern Physics | General Chemistry | Introductory Astrophysics (Honors) | Compact Objects & Gravitational Waves (Directed Study) | Introductory Geographic Information Systems | Marine Biology

SKILLS

Python (Advanced) | Java (Advanced) | Groovy (Advanced) | Ruby (Advanced) | PHP (Advanced) | Go (Beginner) | C (Beginner) | Swift (Beginner) | JavaScript/TypeScript (Advanced) | CSS (Advanced) | HTML (Advanced) | ArcGIS (Beginner) | DigiStar (Beginner) | SMC (Beginner) | SKLearn (Beginner) | IDL (Beginner) | FLASH (Beginner)

ACADEMIC & RESEARCH EXPERIENCES

2025 NASA JET PROPULSION LABORATORY (JPL) | CALTECH

Analysis and Archiving of Near- and Mid-Infrared Observations of Outer Planet Atmospheres

Student Independent Research Internship (SIRI) | Advisor: Dr. Glenn S. Orton

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 | PASADENA CITY COLLEGE

Simulating eXtreme Spacetimes (SXS) | Independent Study | Advisor: Dr. Maria Okounkova

- 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 | EARTHSOPE 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 NASA Infrared Telescope Facility (IRTF)** *Mauna Kea, HI*
2 nights; 3.2m; 0.8-5.3 microns (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** *Fukui, 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

- Current* **CALTECH** *Pasadena, CA*
 | *Research Assistant, Planetary Sciences Department*
2024 *Science Communication Intern, NASA-JPL Lunar Trailblazer Mission*
November *Advisor: Dr. Bethany Ehlmann*
- Current* **ORANGE COAST COLLEGE PLANETARIUM** *Costa Mesa, CA*
 | *Presenter*
2024
May

TEACHING & TUTORING

2025	EARTHSCOPE MIAMI UNIVERSITY NSF	<i>Miami, OH</i>
<i>September</i>	<i>Teaching Assistant</i>	
<i>June</i>	<i>Seismology Skills Workshop</i>	
2018	UNIVERSITY OF WASHINGTON	<i>Seattle, WA</i>
<i>May</i>	<i>Instructor</i>	
<i>January</i>	<i>Introductory Web Development</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>		

2011 November	Senior Developer, New and Emerging Technologies	
2011 November	NEUTRINO, INC Front End Developer	Seattle, WA
2008 January	LUXURYREALESTATE.COM Front End Developer	Seattle, WA
2007 May		

VOLUNTEER EXPERIENCES

Current 2021 October	COWORKER SOLIDARITY FUND Committee Member	Annapolis, MD
2025 April	MESA STEM DAY Volunteer	Newport Beach, CA
2024 December	MESA CAMPUS COUNCIL Panelist	Newport Beach, CA
2024 November	DEMOCRATIC NATIONAL COMMITTEE Phone Bank Operator	Washington, DC
2024 October	NEWPORT-MESA COLLEGE & CAREER FAIR Booth Operator for Coastline College & MESA	Costa Mesa, CA
2024 September	EXPLORE CALTECH Booth Operator for Pasadena City College Physics & Astronomy	Pasadena CA
2024 May	BOLSA CHICA CONSERVANCY Invasive Species Removal	Huntington Beach, CA
2024 May	SAN DIEGO COAST KEEPER Water Quality Testing	San Diego, CA
2024 June January	SURFRIDER FOUNDATION Beach Cleanup	San Clemente, CA
2016 August	ORANGE COUNTY PROBATION DEPARTMENT At-risk youth mentor (OC GRIP)	Santa Ana, CA
2015 August		

2016	MINDMAKERS	<i>Pasadena, CA</i>
<i>August</i>	<i>Youth mentor & web developer</i>	
2015		
<i>August</i>		
2014	KABOOM!	<i>Costa Mesa, CA</i>
<i>August</i>	<i>Playground builder</i>	
2014	YMCA	<i>St. Louis, MO</i>
<i>August</i>	<i>Volunteer for Cheer team</i>	
<i>January</i>		
2014	GIRL SCOUTS OF AMERICA	<i>St. Louis, MO</i>
<i>August</i>	<i>Volunteer chaperone for troop</i>	
<i>January</i>		
2009	LIVEFEED	<i>St. Louis, MO</i>
<i>August</i>	<i>Web developer</i>	
2007		
<i>January</i>		
2005	MISSOURI PUBLIC INTEREST RESEARCH GROUP	<i>St. Louis, MO</i>
<i>August</i>	<i>Canvasser</i>	
<i>June</i>		
2001	EVERGREEN VETERINARY HOSPITAL	<i>Kirkland, WA</i>
<i>June</i>	<i>Vet technician assistant</i>	
<i>January</i>		

AWARDS & SCHOLARSHIPS

2025	ORANGE COAST COLLEGE	<i>Costa Mesa, CA</i>
	<i>Garrison Fellow</i>	
2025	COMMUNITY COLLEGE LEAGUE OF CALIFORNIA	<i>Sacramento, CA</i>
	<i>Phi Theta Kappa All-California Academic Award, First Team</i>	
2025	COASTLINE COLLEGE	<i>Fountain Valley, CA</i>
	<i>Associated Student Government Career & Technical Merit Scholarship</i>	
2025	COASTLINE COLLEGE	<i>Fountain Valley, CA</i>
	<i>Herman Tate Endowment</i>	
2024	NATIONAL SCIENCE FOUNDATION	<i>Alexandria, VA</i>
	<i>Scholarships in Science, Technology, Engineering, & Math (S-STEM) Grant</i>	

2024 JEANNETTE RANKIN FOUNDATION

Jeannette Rankin National Scholar

Athens, GA

2024 ORANGE COAST COLLEGE FOUNDATION

Peter Christian Hernandez Memorial Scholarship Award

Costa Mesa, CA

PUBLICATIONS

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. (2024). Remote seismology correlation and Mount St. Helens volcanology. *Seismology Skill Building Workshop for Undergraduates*.

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>

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/>