

Juliann Nicole Panehal

panehal@usc.edu

4900 W 116th St. Apt 29, Hawthorne, CA, 90250

808-227-5406

A driven & diverse graduate student seeking to expand her skills as a researcher

EDUCATION

- University of Southern California** | PhD Candidate – Amend Geomicrobiology Lab *August 2023 – Present*
- California State University Los Angeles** | MS - Physics & Astronomy | 3.9 GPA *Jan 2020 – Fall 2023*
- Cornell University** | Bachelor of Science in Business & Hotel Administration | 3.9 GPA *Dec 2012*

RESEARCH EXPERIENCE

- Research Laboratory Technician** | Caltech - Geological and Planetary Sciences *Dec 2022 – Sep 2023*
Worked under the advisement of Alex Sessions
Ran experiments ranging from stable isotope analysis to microbial culturing
Maintained research facility: cleanliness, ordering, & inventory
- Caltech BBE-CEMI WAVES Fellow** | Division of Geological and Planetary Sciences *Summer 2022*
Biology & Biological Engineering - Center for Environmental Microbial Interactions (BBE - CEMI) Fellow
Advisor: Alex Sessions, Project Affiliates: Victoria Orphan & Barbara Lollar, Mentor: Elliott Mueller
Project: “Exploring the Abiotic–Biotic Gap: Investigating the Isotopic Composition of Acetate in Kidd Creek”
 - Investigated potential abiotic cycles in a rare deep subsurface environment
 - Tested a novel technique to measure the stable isotopic composition of acetate
 - Used ion chromatography and ESI-Orbitrap Quadrupole MS to isolate and analyze samples
 - Created a standard methodology to be used for future measurements
- Graduate Research Assistant** | CSULA – Dr. Susan Terebey’s Protostar Research Group *Aug 2021 – Fall 2023*
Research Funded by the National Radio Astronomy Observatory (NRAO)
Thesis: “The Inner Workings of a Protostar: A Chemical View of the Disk and Envelope of L1527”
 - Elucidate astrochemistry of a Class 0/1 protostar
 - Compare predictions of gas-phase molecules modeled in IDL to ALMA (Atacama Large Millimeter/Submillimeter Array) data
 - Process and analyze data using CASA (Common Astronomy Software Application)
- ALMA Data Reduction Workshop** | University of Colorado - Boulder *Oct 2022*
Learned to reduce, manipulate, and analyze ALMA archival data using CASA

LEADERSHIP ROLES

- Teaching Assistant** | USC | Geology 105 – Planet Earth *Aug 2023 – Present*
Run lab sections for ~ 50 geology students – instruction, grading, and overall lab safety & supervision
- President** | Physics & Astronomy Club | California State University Los Angeles *Oct 2021 – Sep 2022*
Organized & led meetings, planned club & community star gazing events, allocated funding for club telescopes
- Project Supervisor / Training & Development Manager** | Carnival Cruise Line *Jan 2014 – Feb 2017*
Traveled fleet-wide with Marine Safety Officers to ensure compliance via scheduled drills & exercises
Created and utilized training materials for various emergency response positions
Personally designed the Excel model used to track & analyze onboard assessments for all shipboard crew
Trained over 9000 Carnival employees
- Assistant Maître D’** | Carnival Cruise Line | Carnival Dream & Carnival Miracle *Feb 2013 – Jan 2014*
Directly managed 60 staff members and supervised department of 300 F&B employees
Oversaw operation of 1130 seat dining room, buffet for 4000 guests, & employee dining serving 1300 employees

Lead TA & TA | Cornell

Feb 2013 – Jan 2014

Lead TA for Culinary Theory & Practice, TA for Hospitality Development & Planning, TA for Intro to Wines

AWARDS

Fellowships | NRAO – ALMA Student Observing Support

Oct 2022 – Present

Awarded \$35,000 to continue MS thesis work with ALMA data

Scholarships | California State University Los Angeles

Aug 2022

John Angione Endowed Scholarship for Physics

Roland Carpenter Memorial Scholarship for Physics & Astronomy

HONORS

Nominated for Outstanding Graduate Student Award | California State University Los Angeles *April 2022*

Honored on Dean's List | All Undergraduate Semesters

Aug 2008 – Dec 2012

Voted President & Most Valuable Board Member | Hospitality Students International | Cornell

Dec 2011

Chosen Member of Ye Hosts Honorary Society | Cornell

Dec 2011

Elected as Marketing Liaison for Salsa Club at UW | University of Washington, Seattle

Sep 2009

High School Valedictorian at age 15 | Hualalai Academy | Kailua Kona, Hawaii

May 2008

SKILLS

Bio/Chem Laboratory

Aerobic & Anaerobic Culturing, Biological Assays, DNA Extraction / PCR, Environmental Microbial Sampling, Environmental Analyzer Use / Sample Preparation, ESI-Orbitrap Quadrupole Mass Spectrometry, Gram Staining, Ion Chromatography, Laminar Flow Hood/ Sterile Culturing Techniques, Picarro Isotopic Water Analysis, TSQ Quantum Mass Spectrometry

Computer

Programming in IDL, Python, & R Studio; Advanced Use of Microsoft Excel, PowerPoint, & Word; Experience using Petrel (3D Geophysical Modeling Software), CASA (Common Astronomy Software Application), & SAO Image DS9 (Astronomical Imaging Software)

OUTREACH

Demonstrations of up to 16" Cassegrain / Newtonian telescopes

Amateur astronomer for Joshua Tree's Annual Night Sky Festival

Coordinated and led various astronomy outreach events at Calstate LA

Volunteer STEM Ambassador for Engaging Girls in STEM (an LA County Office of Education Program)