# JILLIAN PACE

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A self-motivated individual with years of teamwork and leadership experience, in and outside of the classroom. I am eager to apply my background in aerospace engineering towards learning in a professional engineering environment.

## EDUCATION

**Bachelor of Science in Aerospace Engineering, Atmospheric and Oceanic Sciences Minor**
University of Colorado Boulder | May 2024
Dean's List: Fall 2020, Spring 2022, Fall 2023, Spring 2024

## EXPERIENCE

**Electrical Team Lead** | GNSS-IR for Environmental Remote Sensing | University of Colorado, Boulder | August 2023–May 2024

- Purpose: design and develop a high accuracy remote sensing system using GNSS-IR to provide near-real-time environmental monitoring of critical water levels, with a unit cost less than $800
    - Created appropriate CONOPS, functional block diagram, and system requirements to properly scope the project for successful completion in an eight-month timeline
- Presented at CU Boulder's 31st Annual Campus Sustainability Summit and Smead Aerospace Student Projects Symposium
- Manage subsystem team of four to complete GNSS antenna and power subsystem trade studies
    - Mastering and troubleshooting instruments such as source meter instrument for battery discharge testing, and surface mounting technology for PCB manufacturing
    - Lead electrical component and power integration with entire system, troubleshooting and solving issues as they arise in order to ensure requirements can be verified/validated
- Interact with other subsystem leads, project manager, and advisors in weekly meetings; advocate for budget and resources to be allocated to the electrical team
    - Report updates, concerns, and questions to whole team; schedule and coordinate electrical team meetings with subject matter experts

**Undergraduate Research Assistant** | Laboratory for Atmospheric and Space Physics (LASP) | Boulder, CO | May 2023–May 2024

- Update work order with process completion information and notes; consult with engineers regarding discrepancies and anomalies, and provide feedback and suggested solutions
- Laser mark flight hardware with part number and serial number as specified by work order instructions for configuration control and controlled inventory traceability
- Clean, handle, and document flight hardware per work order or flight assembly instructions, using production work order software
    - Experience with cleaning: aluminum, stainless steel, titanium, flight harnesses, polished optics, gold plated hardware, vantablack coating, painted parts
    - Support delivery to Bake Out Thermal Chamber (BOT)
- Support flight hardware production lab and cleanroom spaces by monitoring, procuring, and re-stocking consumable lab inventory (solvents, cleaning solutions, gloves, wipes, etc.), and maintaining equipment including ultrasonic, deionization, and bagging machines
- Trainings: Static discharge, ISO Class 7 cleanroom, hazardous waste disposal

**Assistant Director** | Steve and Kate's Camp | San Carlos, CA | May–August 2022

- Navigate spontaneous conversations with parents, addressing concerns sensitively yet effectively, to preserve the safety and enjoyment of campers and counselors in day-to-day camp operations
- Mentor counselors by reviewing responsibilities and using years of experience to provide advice, allowing counselors to promote advancement of communication skills and childhood emotional development in campers

## RECOGNITIONS, INVOLVEMENT, AND PUBLICATIONS

- Arnold, L. W., Billman, J. A., Blum, R. A., Feinland, M. A., Gladkova, A. A., Huertas, S., Lee, J., Oliva, R. J., Pace, J. I., & Wadman, C. E. (2024). A Low-Cost, Multifunctional Environmental Remote Sensing Sensor Using GNSS Interferometric Reflectometry. [manuscript submitted for publication].
- **Herbst Fellow**: Spring 2024 Fellowship; research project to articulate potential ways that macroethics can be integrated into engineering curriculum while promoting student retention
- **Certificate in Engineering, Ethics, and Society**: degree certificate in recognition of my extensive course work in the Herbst Department of Engineering, Ethics, and Society
- **Mayes Endowed Travel Award Fund Recipient**: education abroad scholarship recipient Summer 2022 in recognition of my appreciation and pursuit of the arts and humanities as an engineer

## RELEVANT COURSEWORK

Structures, Dynamics and Systems, Electronics and Communication, Aerodynamics, Orbital Mechanics and Attitude Dynamics, Thermodynamics, Vehicle Design and Performance, Introduction to Differential Equations with Linear Algebra, Experimental and Computation Methods in Aerospace, Principles of Climate, Intro to Oceanography, Desert Meteorology and Climate, Remote Sensing Lab, Descriptive Physical Oceanography, Policy Implications of Climate Controversies

## SKILLS

MATLAB, Python, ANSYS (finite element analysis), Orbital STK, LabVIEW VI, Arduino, Raspberry Pi, LaTeX, Symbol Writer Pro (laser marking), MacOS, Windows, soldering, custom PCB assembly, spatial visualization, engine cycle analysis, modal analysis, uncertainty analysis/error propagation, technical writing, reading technical drawings, teamwork, written and verbal communication, organization, clarity in work, resourcefulness, project presentation, attention to detail, punctuality

## INTERESTS

Oceanic instrumentation, monitoring Earth systems and processes, playing guitar, skiing, learning about waves (all types)