

Kevin A. Silberberg

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EXPERIENCE

Atmos Lab, Applied Mathematics, UCSC

Graduate Student Researcher

Santa Cruz, CA

June-September 2024

- Obtained Remote Pilot Certification under the FAA's Small UAS Rule (Part 107).
- Mentored 6 undergraduate researchers to develop experimental methods for the collection of methane samples and mathematical tools for system identification using **MATLAB** and NASA's **SIDPAC** software.
- Conducted vertical transects using quadcopter drones to collect air samples downwind of dairy farms which was used to create a mathematical model of methane emissions.
- Researched sensor-free methods to infer wind velocity from recorded flight data of rotorcraft drones.

CAMINO³, Ecology and Evolution, UCSC

Undergraduate Researcher

Santa Cruz, CA

June-September 2022

- Conducted bird count surveys and collected biological samples (vegetation, feathers, blood, stool) from alpine birds for genomic and isotopic analyses. Collaborated with team members to plan meals and prepare gear for field missions across 14 different sites in the Sierra Nevada Mountains.
- Executed an [independent research project](#)⁴ analyzing historic trout population data using **ArcGIS**; performed hypothesis testing and statistical data analysis with **R**.
- Presented research findings at the Ecology and Evolutionary Biology Seminar.

United States Navy

Aviation Machinist's Mate, 2nd Class

Lemoore, CA

2013-2017

- Led a team of 7 maintenance technicians in executing 5,964 maintenance actions supporting 75 military aircraft across multiple squadrons, ensuring 3,685 accident-free flight hours and the completion of 1,327 successful missions.
- Designed and delivered comprehensive on-the-job training programs that qualified 7 technicians in advanced maintenance procedures. Developed technical competency standards and performance evaluation metrics.
- Coordinated and facilitated 45 hours of professional development training, directly contributing to 8 team members earning promotions through enhanced technical qualifications and leadership assessments.
- Served dual roles by ensuring regulatory compliance and safety standards while managing daily operations of aircraft maintenance as work center manager.

EDUCATION

University of California Santa Cruz

Master of Science
Scientific Computing

Santa Cruz, CA

2024 - 2025

University of California Santa Cruz

Bachelor of Science
Applied Mathematics, Statistics

Santa Cruz, CA

2021 - 2024

Fresno City College

Associate in Science
Biology for Transfer (AS-T)

Fresno, CA

2017 - 2020

SCHOLARSHIPS, HONORS & AWARDS

2023-2025 Next Generation Scholars in Applied Mathematics

2023-2024 Dean's Honors Spring ('23), Fall, Winter, and Spring Quarters

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