Kevin A. Silberberg

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WORK EXPERIENCE

Atmos Lab, Applied Mathematics, UCSC   Santa Cruz, CA
Graduate Student Researcher   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.

CAMINO[3]**, Ecology and Evolution, UCSC**   Santa Cruz, CA
Undergraduate Researcher   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 at 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   Lemoore, CA
Aviation Machinist's Mate, 2nd Class   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.

TEACHING EXPERIENCE

Teaching Assistant   Santa Cruz, CA
    Undergraduate Course: Mathematical Modeling I   Winter 2025
    Applied Mathematics Department, UCSC

- Graded and provided detailed feedback for 32 students on weekly submissions for writing and coding assignments.
- Held 1-hour long discussion sections twice a week, as well as 1-hour long office hours twice a week.

EDUCATION

University of California, Santa Cruz   Santa Cruz, CA
    Master of Science in Scientific Computing and Applied Mathematics   2024 - 2025
    GPA: 4.0

University of California, Santa Cruz   Santa Cruz, CA
    Bachelor of Science in Applied Mathematics, Statistics   2021 - 2024
    GPA: 3.6

Fresno City College   Fresno, CA
    Associate of Science in Biology   2017 - 2020

TECHNICAL SKILLS

Programming Languages:	Julia, Python, FORTRAN, C
Software and Tools:	Quarto, LaTeX, Markdown, Emacs, Unix, OpenMPI, OpenMP
Certifications:	FAA Remote Pilot Certification (Part 107)

HONORS & AWARDS

Next Generation Scholars in Applied Mathematics	2023-2025
Teaching Assistant Excellence Award	Winter 2025
Dean's Honors Spring ('23), Fall, Winter, and Spring Quarters	2023-2024