Weston Kirk

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Education

Stanford University *Sept 2022 – June 2026*
BS in Earth Systems + Math

- **GPA:** 3.67
- **Coursework:** Machine Learning, GIS/Remote Sensing, Probability Theory, Geology, Linear Algebra/Matrix Theory, Multivariable Calculus, Discrete Math, Conservation, Data Structures, Computer Systems

Experience

CURIS Fellowship *Stanford, CA*
STAIR Lab, Computer Science Department, Stanford University *Jun 2025 - Aug 2025*

- 1 of 15 undergraduate students selected for prestigious CS research fellowship. Joining the Stanford Trustworthy AI Research Lab to work on code translation for formal verification under Prof. Sanmi Koyejo.

Undergraduate Researcher in Daru Lab *Stanford, CA*
Daru Lab, Department of Biology, Stanford University *Sept 2023 – Present*

- Researching crop wild relatives under Prof. Barnabas Daru, attended "Biogeography R Workshop 2023"

Earth Systems Public Service Fellowship *Austin, TX*
Save Our Springs Alliance *June 2023 – Sept 2023*

- Co-founded a nonprofit conservation coalition, presented at inaugural event of 50+ attendees

Projects

Remote Sensing of Land Final Project *2025*

- Evaluated 4 algorithms for supervised pixel-based classification of prairie remnants in Google Earth Engine

CS 109 Grand Challenge Project *2024*

- Used rolling MLE for Poisson and Exponential RV to analyze time-series data; visualized groundwater declines
- Demonstrated spring-flow variation across time-scales; selected as one of 9 finalists out of 113 projects

Moonquake CNN Classifier *2024*

- Built a CNN to classify moonquakes by type, achieving a validation accuracy of over 90%
- Currently working on labeling unclassified data; aiming to submit to conference in late 2025

BSURP Research Project *2024*

- Modeled shifts in range, functional and phylogenetic diversity in crop wild relatives under SSP scenarios
- Developed algorithm in R libraries to identify the n-closest relatives of a species within a monophyletic cluster

Mapping Average Flower Color Using Voronoi Polygons *2024*

- Recorded population size and flower color (RGB) of *Zeltnera beyrichii* across seven wild populations
- Created Voronoi polygon nearest neighbor map in QGIS to visualize average flower color within range

Additional Information

CS 103 Challenge Problem Award *2024*

- Solved advanced problems exceeding standard homework difficulty including concepts such as Cantor's Diagonalization Theorem, Turing Machines, and Regular Languages

Member of Jasper Ridge Docent Class *2023*

- Graduated as a part of 2023 cohort of BIO 105 A/B, which is a 20-week interdisciplinary, field-based course

Heart of YMSL Award *2021*

- One member of each class is recognized for outstanding commitment to service and leadership development