Weston Kirk

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Education

Stanford University *Sept 2022 – June 2027*
BS in Mathematics and Earth Systems (Land Systems)
MS in Computer Science (Theory)

- **Relevant Coursework:** Machine Learning, Probability Theory, Linear Algebra, Multivariable Calculus, Discrete Math, Number Theory, Data Structures, Systems, Remote Sensing, Conservation, Geosciences
- **Research interests:** AI4Math, AI4Science, Formal Verification, Geospatial AI, LLM Evaluation

Publications

VeriBench: End-to-End Formal Verification Benchmark for AI Code Generation in Lean 4. Brando Miranda, Zhanke Zhou, Allen Nie, Elyas Obbad, Leni Aniva, Kai Fronsdal, **Weston Kirk**, Dilara Soylu, Andrea Yu, Ying Li, Sanmi Koyejo. *ICML AI for Math Workshop*, 2025. Nominated for Oral (Top 1%)

Trusting the Formal Judge: Certifying LLM Theorem Scorers for Code Verification in Lean4. Brando Miranda, Srivatsava Daruru, Slim Barkallah, Allen Nie, Zhanke Zhou, Leni Aniva, Elyas Obbad, **Weston Kirk**, Ying Li, Rylan Schaeffer, Santiago Cuellar, Dilara Soylu, Eric Chen, Bo Han, Sanmi Koyejo. *Under Review*, 2025.

Experience

CURIS Fellow, STAIR Lab *Apr 2025 – Present*
Stanford CS Department *Stanford, CA*

- Software verification research in the STAIR Lab under Brando Miranda and Dr. Sanmi Koyejo.

Biology Researcher, Daru Lab *Sept 2023 – Present*
Stanford Biology Department *Stanford, CA*

- Crop wild relatives research under Dr. Barnabas Daru; attended Biogeography R Workshop 2023.

Earth Systems Public Service Fellow *June 2023 – Sept 2023*
Haas Center for Public Service, Save Our Springs Alliance *Austin, TX*

- Co-founded a conservation coalition; presented at the inaugural event with 50+ attendees.

Projects

Remote Sensing of Land Final Project *2025*

- Evaluated four GEE classifiers; literature-level accuracy with one-tenth the training pixels.

Moonquake CNN Classifier *2024*

- Built CNN to classify moonquakes with 90%+ validation accuracy; currently labeling unclassified data.

BSURP Research Project *2024*

- Developed algorithm for n-nearest monophyletically-clustered relatives; modeled diversity shifts.

CS 109 Grand Challenge Project *2024*

- Used rolling MLE for Poisson/Exponential RVs to analyze spring-flow time series; finalist (9 of 113, ∼8%).

Additional Information

CURIS Fellowship *2025*

- Selected as 1 of 15 undergraduates for CURIS research fellowship.

YC AI Startup School *2025*

- Admitted to inaugural conference (3k/18k ∼17%).

CS 103 Challenge Problem Award *2024*

- Solved advanced theory problems on diagonalization, Turing Machines, and regular languages.

Reviewer, NeurIPS 2025 MATH-AI Workshop *2025*

- Selected to serve as a reviewer for a premier workshop on mathematical reasoning and artificial intelligence.