Antony Sikorski

(970)682-8847 | antony.sikorski@gmail.com | antonysikorski | antonyxsik | antonyxsik

I am a Statistics PhD candidate working on machine learning and statistical methods for large spatial data and high resolution images. I am looking to expand my experience in industry and apply my expertise to meaningful, real-world problems.

EDUCATION

Colorado School of Mines Aug 2022 – May 2026
PhD: Statistics Golden, CO

Colorado School of Mines Aug 2022 – May 2024
MS: Data Science, Focus in Machine Learning Golden, CO

University of California, San Diego Sept 2018 – Dec 2021
BS: Applied Mathematics, Minor in Physics San Diego, CA

EXPERIENCE

LEAP @ Columbia May 2024 – Aug 2024
AI Research Fellow New York, NY

- Applied deep learning and equation discovery methods to create accurate and interpretable climate model parameterizations.
- Mentored two undergraduate students during their REU, resulting in their first conference presentation.
- Led introductory workshops on data visualization, Jupyter notebooks, deep learning with PyTorch, and version control.

NASA Jet Propulsion Laboratory May 2023 – August 2023
Machine Learning Intern Los Angeles, CA

- Developed an unsupervised anomaly detection system using adversarially trained auto-encoders for multivariate time series (Deep Space Network antenna data).
- Designed custom parsers and automated several previously manual data acquisition pipelines, leveraging LLMs to rapidly process the results. Routines that once occupied hours of engineers' time now occur in seconds.

Excelitas Technologies Corp Feb 2022 - Mar 2023
Data Analytics Engineer Boulder, CO

- Identified critical to quality factors and relationships to aid the process engineering team in implementing statistically-informed improvements to maximize product quality and yield.
- Frequently presented results to upper management and aided with strategic decision making.

SKILLS

Programs/Languages: R, Python, Git, Julia, SQL, LaTeX, Markdown
Notable Packages: PyTorch, TensorFlow, Keras, Pandas, Scikit-learn, fields, LatticeKrig, ggplot2, dplyr
Core: Statistical Modeling, Deep Learning, AI, LLMs, Data Visualization, Software Development, Version Control
Spoken Language: English (fluent), Russian (fluent), Spanish (beginner)

AWARDS

NSF GRFP Fellow Sept 2024

- Awarded the National Science Foundation Graduate Research Fellowship to fund the remaining years of my PhD.

SELECT PUBLICATIONS

- "Normalizing Basis Functions: Approximate Stationary Models for Large Spatial Data", **A. Sikorski**, D. McKenzie, D. Nychka, *Stat* (2024).
- R Package `LatticeKrig`, D. Nychka, D. Hammerling, S. Sain, N. Lenssen, C. Smirniotis, M. Iverson, **A. Sikorski** (2024)
- "Crystal Growth of Quantum Magnets in the Rare-Earth Pyrosilicate Family R2Si2O7 (R = Yb, Er) Using the Optical Floating Zone Method", H.S. Nair, T. DeLazzer, T. Reeder, **A. Sikorski**, G. Hester and K.A. Ross, *Crystals* (2019).