ANTONY SIKORSKI

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I am a third year Statistics PhD candidate at the Colorado School of Mines. I primarily study the applications of machine learning and statistics to large spatial and spatio-temporal data sets. I am looking to expand my experience in industry and apply my expertise to meaningful, real-world problems.

EXPERIENCE

Research Fellow – LEAP @ Columbia: May 2024 - August 2024

- Incoming research fellow. Will be mentoring undergraduate researchers and working on a project to apply machine learning methods to develop parametrizations of unresolved turbulent flow in the atmosphere.

Machine Learning Intern – NASA Jet Propulsion Laboratory: May 2023 - August 2023

- Worked with a diverse team of system engineers, statisticians, and machine learning experts to build and implement unsupervised anomaly detection systems for multivariate time series (Deep Space Network data).
- Designed custom parsers and automated several previously manual data acquisition pipelines.
- Designed pipelines to query OpenAI LLMs such as GPT4 with API access to rapidly process large amounts of non-confidential information and avoid web version context window limits.

Data Analytics Engineer – Excelitas Technologies Corp, Boulder, CO: February 2022 - March 2023

- Worked as a data consultant to aid the process engineering team in implementing statistically-informed improvements to maximize product quality and yield. Previously held a position as a data and analytics engineer.
- Consistently communicated results to upper management and aided with strategic decision making.

SKILLS

- **Programs/Languages:** R, Python, SQL, Git, and Julia
- **Notable Packages:** Python: PyTorch, TensorFlow, Keras. R: fields, LatticeKrig, dplyr, ggplot2
- Statistical Modeling, Machine Learning, Visualization, Package development (LatticeKrig), Version control
- Fluent in both English and Russian.

AWARDS

NSF GRFP: Sept 2024 - Aug 2027

- Awarded the National Science Foundation Graduate Research Fellowship to fund the remaining 3 years of my PhD.

EDUCATION

PhD, MS – Colorado School of Mines: August 2022 - Present

- Third year Statistics PhD candidate in the Department of Applied Mathematics and Statistics.
- Data Science MS completed in May of 2024.
- Have taught the introductory statistics course, and been a TA for two semesters of differential equations.

BS – University of California, San Diego: September 2018 - December 2021

- Major in Applied Mathematics and a Minor in Physics, graduated early with Provost Honors standing.

SCIENTIFIC PUBLICATIONS

- "Synthesis of Yb2Si2O7 using an Optical Floating Zone", **A. Sikorsk**i, H.S. Nair, T. Reeder and K.A. Ross, *APS Four Corners Conference*, Fort Collins, CO, October 20-21, 2017.
- "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*, *9*, 196.