

Kyle Ritscher

949-354-9139 | kritscher@g.ucla.edu | [linkedin.com/in/kyleritscher33](https://www.linkedin.com/in/kyleritscher33) | github.com/kritscher33

EDUCATION

University of California - Los Angeles

Los Angeles, CA

Bachelor of Science in Mathematics of Computation, Minor in Statistics

2020 – 2024

- **GPA:** 3.99
- **Relevant Coursework:** Machine Learning, Optimization, Data Mining, Data Management Systems, Graph Theory, Algorithms, Stochastic Processes, Linear Models, Numerical Analysis, Real Analysis, Probability Theory, Statistics, Statistical Computing, Advanced Programming
- **Upsilon Pi Epsilon** (Computer Science Honors Society)
- **UCLA Club Track & Field**

RESEARCH EXPERIENCE

Research Assistant – Professor Madrid Padilla (UCLA Statistics)

August 2023 – Present

“Quantile Temporal-Spatial Trend Filtering”

In Progress

- Designed novel ADMM algorithm for quantile trend filtering and quantile smoothing splines on general inputs, including non-uniformly spaced-Temporal Spatial data.
- Demonstrated Quantile Trend Filtering’s robustness with experiments in diverse data scenarios.

“Risk Bound for Quantile Additive Trend Filtering”

Submitted - ICML 2024

- Devised and implemented algorithm for empirical demonstrations, displaying performance advantages of QATF over ATF and QS methods on various error distributions.

WORK EXPERIENCE

Math & Data Analytics R&D Intern – Sandia National Laboratories

June 2024 – Sept. 2024

Data Analyst – Operation Smile

Jan. 2024 – Present

- Assist Global Surgery Fellows with research paper proposals and data analysis
- Enhance the automation of data cleaning and collection from Global Surgical Programs

Data Science & Analytics Intern – TARTLE

May 2023 – Sept. 2023

- Generated comprehensive data analysis reports and crafted compelling media posts showcasing the company’s specialized tools and innovative practices
- Spearheaded survey improvements which I proposed to increase the value of deliverable data
- Revamped buyer UI to effectively display TARTLE’s global presence

Operations & Event Supervisor – University of California, Recreation

Oct. 2021 – Dec. 2023

- Managed operations at Pauley Pavilion, Drake Stadium, and Los Angeles Tennis Center
- Served as a dependable and trusted point of contact for Student Venues and Events Operations
- Oversaw the training of new employees, and lead student staff during events

Accounting Assistant – Bella Collina Golf

June. 2021 – Sept. 2021

PERSONAL PROJECTS

NBA Data Science Project | R

Summer 2023

Developed a custom career success metric and model for predicting NBA (National Basketball Assoc.) players’ career success from their first four seasons.

Battleship Game | C++

Summer 2022

Programmed a playable battleship game/simulator with 3 AI modes, each employing different algorithms, the premier of which rivals the famous “Battleship Algorithm” while relying purely on statistical methods.

Bruin Sports Analytics Data Journalism | R

Winter 2022

Authored an article on the statistical validity of “veteran presence” in the NBA.

TECHNICAL SKILLS

Languages: C++, R, Python, SQL (Postgres), Cypher, MQL, Ruby, HTML/CSS

Frameworks: Spark, Neo4j, MongoDB, React, Rails

Libraries: PyTorch, Scikit, pandas, NumPy, Matplotlib, seaborn