# **Dylan Skinner**

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#### **EDUCATION**

# **Bachelor of Science: Applied and Computational Mathematics Emphasis**

Apr 2024 Provo, UT

**Brigham Young University** 

Concentration: Data Science and Machine Learning

GPA 3.99/4.0

Member of BYU Honors Program

## **SKILLS**

### **Junior Year Skills**

 Data Structures, Fourier Analysis, Wavelets, Importance and Rejection Sampling, Thompson Sampling, Numerical Optimization, Dynamic Optimization, Numerical Linear Algebra, QR and Singular Value Decomposition, PageRank Algorithm, Gaussian Quadrature

# **Programming Languages/Software**

Python (PyTorch, NumPy, Pandas, Matplotlib, Scikit-Learn), R, Tableau, C++, SQL, Unix, Git, Bash

## **Relevant Coursework**

Linear and Nonlinear Analysis, Computation and Optimization, Deep Learning, Multivariable Calculus

#### **EXPERIENCE**

#### **Mathematics Research Assistant**

April 2021-Present

Brigham Young University, Dr. Mark Hughes

Provo, UT

- Conducts research for 20+ hours a week in knot theory, 4D topology, and machine learning
- Designed and implemented a highly-efficient reinforcement learning algorithm using PPO, resulting in a four-fold increase in learning speeds
- Collaborates with a global network of researchers to develop successful predictive models in 4D topology

#### **R Programming Teaching Assistant**

August 2022-December 2022

Brigham Young University

Provo, UT

- Assists professor for 5+ hours a week in teaching data visualization and statistical programming in R
- Facilitates office hours to help 12+ students solve real-world statistical problems

### **Online Mathematics Instructor**

May 2020-Aug 2020

Juni Learning

Provo, UT

- Instructed students for 16+ hours a week from 4+ countries in Algebra, Geometry, and base-level proofs
- Evaluated students learning styles to provide appropriate techniques for maximum understanding
- Built and developed relationships with students to help them learn and grow

#### **VOLUNTEER EXPERIENCE**

# **Volunteer Representative**

April 2021-Present

Fresh Start Ventures

Provo, UT

- Attended and facilitated weekly meetings for groups of 13+ recently released prison inmates
- Coached recently released prison inmates for 3 hours a week on their goals and helped them develop plans

#### **Full-time Volunteer Representative**

July 2017-July 2019

The Church of Jesus Christ of Latter-day Saints

Reno, NV

- Planned, organized, and conducted trainings and conferences of 160+ missionaries
- Taught 14+ lessons each week in the homes of families and individuals from 10+ countries
- Labored 80+ hours a week to serve and teach a variety of people in Nevada by making and following plans
- Contributed to 40+ leadership councils with local leaders to assist and aid the progress of the missionaries and church members

## SCHOLARSHIPS AND AWARDS

- Full Tuition Academic Scholarship 2019-2023
- School of Physical and Mathematical Sciences Dean's List: 2019-2022