

MAEDÉE TRANK-GREENE

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EDUCATION

B.S., Applied Mathematics with an emphasis in Statistics and Data Science

Boulder, CO

Certificate in Engineering Leadership

May 2024

University of Colorado Boulder

- **Cumulative GPA: 3.699 | Department GPA: 3.956**
- **Relevant Coursework:** APPM 1360, APPM 1650, APPM 2350, APPM 2360, APPM 3050, APPM 3170, APPM 3310, APPM 4350, MATH 4510, CSCI 1300, STAT 2600, ENLP 2000, ENLP 3000

TECHNICAL SKILLS

Python, MATLAB, R Studio, C++, LaTeX

EXPERIENCE

Undergraduate Research Assistant for CU SPUR

May 2022 – Present

Electrical Engineering Department

Boulder, CO

- Worked alongside Dr. Joshua Combes to investigate quantum permutation puzzles
- Investigated if we can build quantum permutation puzzles equipped with a set of moves that make the puzzle possible to solve
- Built programs in Python to visualize permutations and arrangements of puzzle states
- Presented my summer findings in a 10-minute presentation

Undergraduate Research Assistant

May 2022 – August 2022

Applied Mathematics Department

Boulder, CO

- Worked alongside Dr. Jim Curry to investigate datasets revolving around Wi-Fi and transportation usage across the CU Boulder campus
- Built programs in Python to visualize Wi-Fi and transportation usage before, during, and after COVID-19

Learning Assistant for APPM 1360 + APPM 1361

January 2022 – May 2022

Applied Mathematics Department

Boulder, CO

- Worked with 12-14 students weekly on homework problems
- Collaborated with other LAs and TAs to understand concepts and receive feedback
- Utilized pedagogical techniques like student-to-student interactions and open and closed questions

Chladni Plates Analysis

December 2022

APPM 4350 Class Project

Boulder, CO

- Solved a Partial Differential Equation (PDE) with Boundary Conditions (BCs) on a circular domain using separation of variables
- Solved for experimental values of nodes and the frequencies at which each node appeared
- Compared experimental to theoretical node values to determine accuracy of the PDE and BCs given

Implementing Time Series Decomposition with Singular Spectrum Analysis on Monthly Precipitation in Boulder, CO

APPM 3310 Class Project

May 2022

Boulder, CO

- Investigated monthly precipitation in Boulder, CO from 1990 – 2020
- Extracted the trend and seasonal components of time series
- Analyzed residuals of original time series to trend and the original time series to the seasonal component

HONORS AND AWARDS

Dean's List Fall 2021, Spring 2022, and Fall 2022: Achieved a GPA of 3.600 or higher

BOLD Engagement Scholarship Recipient: Scholarship to recognize engineering students who demonstrate academic excellence

Herbert and Judy Paige Family Foundation Engineering Scholarship Recipient: Scholarship to recognize outstanding achievement in the College of Engineering and Applied Science

STUDENT AFFILIATIONS

Theta Tau, Eta Gamma Chapter

August 2021 – Present

Member

Boulder, CO

- Engaged in social events to network and build strong connections
- Managed Boulder Theta Tau Instagram

CU Boulder Club Tennis Team

August 2020 – Present

Member

Boulder, CO

- Attended practice twice a week to build technical tennis skills
- Attended and played in tournaments

