

# J. Matthew Maierhofer

mmaierhofer97@gmail.com | 720.921.6801 | mattmaierhofer.co

## EDUCATION

### UNIVERSITY OF COLORADO

#### BS/MS IN APPLIED MATHEMATICS

Expected May 2019 |

Boulder, CO

Minor in Computer Science

College of Engineering

Dean's List (All Semesters)

Cumulative GPA: 3.91 / 4.0

## COURSEWORK

### UNDERGRADUATE

Fourier Series

Complex Analysis

Applied Analysis

Data Structures

Computer Systems

Algorithms

Abstract Algebra

### GRADUATE

Mathematical Statistics

Partial Differential Equations

Applications of Complex

Variables

Numerical Analysis

Machine Learning

Natural Language Processing

Statistical Learning

## SKILLS

### PROGRAMMING

Languages:

C++ • MatLab • Mathematica

Python •  $\text{\LaTeX}$  • R

Toolsets:

TensorFlow

## SOCIETIES

CU Undergraduate Chapter of SIAM

Officer 2016-17

CU Engineering Honors

Member 2015-Present

CU BOLD Scholar

Member 2015-2018

## EXPERIENCE

### UNIVERSITY OF COLORADO

#### FOURIER SERIES LEARNING ASSISTANT/COURSE ASSISTANT

February 2016 – June 2016, August 2016 – December 2016

- Tutoring and grading homework
- Course Project Development

#### RESIDENT ADVISOR

August 2016 – May 2018

- Developing community and ensuring safety within the residence halls
- Worked with individual residents to develop relationships and promote success
- First response to crises in the residence halls

#### TEACHING ASSISTANT

August 2018 – Present

- Taught weekly recitations
- Developed quizzes and in class assignments
- Graded homeworks and exams

## RESEARCH

### UNIVERSITY OF COLORADO | RESEARCH ASSISTANT

May 2016 – August 2016 | Boulder, CO

- Researched tools for integration of complex differential equations in the complex plane
- Developed a novel Matlab-based numerical differential equation solver for the complex plane for integration around singularities
- Used developed tools to perform analysis regarding the Chazy equation.

#### RESEARCH ASSISTANT

November 2017 – Present | Boulder, CO

- Under Professor Mike Mozer's direction, developed a novel recurrent neural network for event prediction with a focus on temporal data
- Developed synthetic datasets, and formatted real datasets for testing of network

### UNIVERSITY OF SOUTHERN CALIFORNIA | RESEARCH INTERN

May 2017 – August 2017 | Los Angeles, CA

- Participated in the SURE research program in the Media Communications Lab at USC on Computer Vision and Machine Learning
- Helped develop on an object tracking network using convolutional neural networks and signal processing techniques for tracking pedestrians through traffic.

## PROJECTS

### COMPLEX VARIABLES COURSE PROJECT | SUBMITTED TO CJAM

Fall 2017 | University of Colorado

- Paper on theory and applications of Schwarz-Christoffel conformal mappings.

### PROBABLY NOVEL PODCAST | RADIO 1190

Fall 2018 | University of Colorado

- Co-hosted research podcast on the University of Colorado's radio station 1190 AM.