

# Josh Jacobson

<https://joshjacobson.github.io>  
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## EDUCATION

### UNIVERSITY OF COLORADO

#### MS IN APPLIED MATHEMATICS

Expected May 2020 | Boulder, CO  
Cum. GPA: N/A

#### BS IN APPLIED MATHEMATICS

Expected May 2019 | Boulder, CO  
Minor in Computer Science  
Minor in Atmospheric Science  
Global Seminar, Rome, Italy  
Engineering Honors Program  
Dean's List (All Semesters)  
Cum. GPA: 3.66 / 4.0

## LINKS

Github: [joshjacobson](#)  
LinkedIn: [joshjacobson](#)

## SELECTED

## COURSEWORK

### GRADUATE

Markov Process & Queuing Theory

### UNDERGRADUATE

Probability Theory  
Real & Complex Analysis  
Numerical Analysis  
Statistical Learning  
Fourier Series  
Ordinary & Partial Diff. Eqs.  
Algorithms  
Computer Systems  
Data Science  
Physical Oceanography

## SKILLS

### PROGRAMMING

Advanced:

Python • R • JavaScript •  $\LaTeX$

Familiar:

C • C++ • Matlab • Jupyter Lab  
Wolfram Mathematica • Git • Excel

## INTERESTES

Backpacking • Cycling • Alpine Skiing  
Climbing • Conservation Efforts  
Film • Music • Coffee

## RESEARCH

### DEPT. OF APPLIED MATHEMATICS | UNDERGRADUATE RESEARCHER

Jun 2018 – Present | University of Colorado, Boulder  
Worked with Michael Scheuerer and Prof William Kleiber to create an efficient and physically accurate statistical method for simulating weather analyses which were then used to analyze probabilistic forecasting metrics. Publication in preparation.

### KASPRZYK RESEARCH GROUP | SOFTWARE ENGINEER

Aug 2017 – Present | University of Colorado, Boulder  
Lead the development of Parasol, a Javascript library for interactive visualization of multi-objective optimization problems. Publication in preparation.

## EXPERIENCE

### DEPT. OF APPLIED MATHEMATICS | LEARNING ASSISTANT

Aug 2018 – Present | University of Colorado, Boulder

- Held weekly office hours to help guide students on homework assignments and prepare for exams.
- Helped to design and polish final projects for the course.

### RESIDENCE LIFE | RESIDENT ADVISOR

Aug 2017 – May 2018 | University of Colorado, Boulder

- Based in Andrews Hall, home of the Engineering Honors Program (EHP).
- Worked to build a community where students felt welcome and involved.
- Mediated conflicts and addressed residents' concerns.
- Served as the liaison between the EHP and Residence Life, promoting continuity and communication between organizations to better support students.

### VICTOROPS | DATA ENGINEERING INTERN

Jan 2017 – May 2017 | Boulder, CO

- Analyzed symmetry between large SQL databases of consumer logins.
- Wrote R scripts for querying SQL and Cassandra databases and collected other frequently used company scripts into an R package for remote access. This package was reviewed and pushed to production.

### DEPT. OF COMPUTER SCIENCE | COURSE ASSISTANT

Aug 2016 – May 2016 | University of Colorado, Boulder

- Held weekly office hours to guide students on Matlab homework assignments and projects, reinforcing new methods of computational and algorithmic thinking.
- Helped to develop and grade exam questions for midterms and final exams.

## AWARDS

### 2018 | DISCOVERY LEARNING APPRENTICESHIP

- Selected to give a poster presentation highlighting my experience with the Kasprzyk Group at the DLA Symposium.

### 2016 | COMAP MATHEMATICAL CONTEST IN MODELING

- Honorable Mention