

# Samuel Fleischer

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## EDUCATION

### UC DAVIS

PHD IN APPLIED MATHEMATICS  
Expected May 2020 | Davis, CA  
Cumulative GPA: 3.84

### CSU NORTHRIDGE

BS IN MATHEMATICS  
May 22 2015 | Northridge, CA  
Cumulative GPA: 3.65  
Upper Division GPA: 3.98

## FELLOWSHIPS AND AWARDS

### GRADUATE

- **2017:** [NSF Graduate Research Fellowship Honorable Mention](#)
- **Summer 2016, Winter 2017:** Departmental Fellowship, UC Davis Mathematics Department
- **Fall 2015, Winter 2016:** Graduate Program Fellowship, UC Davis Graduate Group in Applied Mathematics

### UNDERGRADUATE

- **Spring 2015:** Outstanding Graduating Senior, [CSU Northridge Mathematics Department](#)
- **Spring 2015:** 3rd Place, [Sigma Xi Student Research Symposium](#), CSU Northridge Chapter, Session II
- **2014-15:** [PUMP Undergraduate Research Groups](#), Pacific Math Alliance, CSU Northridge, NSF Grant DMS-1247679

## SKILLS

- Extreme passion for mathematics research and applications
- Excellent written and oral communication skills
- Exceptional proficiency in Python, R, MATLAB, C,  $\LaTeX$ , Unix, Git(Hub), and Microsoft Office applications
- Exemplary analytical and problem solving skills, and the ability to apply them to real-world situations
- Extensive ability to multitask
- Detail oriented, self starting, hard working, flexible, and personable

## EXPERIENCE

### TEACHING ASSISTANT CONSULTANT | UC DAVIS

April 2017 - Present | [UC Davis Center for Educational Effectiveness](#)

- Conducts one-on-one consultations with teaching assistants from any department
- Guides TAs in their discovery of classroom methods to increase student learning
- Discusses pedagogy and meta-teaching each week with fellow TA Consultants

### ASSOCIATE INSTRUCTOR and TEACHING ASSISTANT | UC DAVIS

Sept 2015 - Present | [UC Davis Mathematics Department](#), [UC Davis COSMOS](#)

- Develops 10-week lesson plans and designs homework sets and exams
- Fuses applications from biology, medicine, engineering, physics, and chemistry into difficult, abstract calculus and linear algebra lectures and discussions
- Oversaw the design and construction of Lego robots and assisted students as they coded instructions using RobotC
- Guided groups of students as they researched, formulated, analyzed, and simulated mathematical models of various biological systems using R

### SOFTWARE COMPUTING SYSTEMS U.G. STUDENT | NASA, JPL

June 2014 - Sept 2015 | [Cassini Spacecraft Mission Sequence Subsystem](#)

- Found and corrected several errors in a thermal model of two vital Cassini Spacecraft scientific instruments
- Developed software to enhance and refine the Cassini ground-based software system testing process
- Created automatic generation of vital software test artifacts, increasing efficiency, greatly reducing potential for human error

## RESEARCH

### GRADUATE STUDENT RESEARCHER | [SEBASTIAN SCHREIBER LAB](#)

Sept 2015 - Present | UC Davis Ecology and Evolution Department

- Conducts research on various topics in Mathematics, Evolution, Ecology, Parasitology, and Epidemiology
- Participates in, and occasionally leads, weekly discussions on academic publications
- Formulates, analyzes, and simulates experimental mathematical models
- Utilizes and improves advanced computational methods
- Develops command line tools (using Python) which automate the creation of relevant graphs to streamline the numerical study of bifurcations and dynamics

## LEADERSHIP AND COMMUNITY ENGAGEMENT

### VICE PRESIDENT | [SOCIETY FOR INDUSTRIAL AND APPLIED MATHEMATICS](#)

June 2016 - Present | UC Davis Mathematics Department

### SECRETARY | [ASSOCIATION FOR WOMEN IN MATHEMATICS](#)

Nov 2015 - Present | UC Davis Mathematics Department

### APPLIED MATHEMATICS REPRESENTATIVE | [GRAD. STUDENT ADMIN.](#)

Sept 2016 - June 2017 | UC Davis

### VOLUNTEER TUTOR | [UC DAVIS STEM CAFE](#)

Sept 2015 - Present | UC Davis Womens' Resources and Research Center

### VOLUNTEER SPEAKER | [MADISON PARK BUSINESS AND ARTS ACADEMY](#)

Oct 2015 - Present | Elementary, Junior High, and High School Career Days

### VICE PRESIDENT | [MATADOR MATH SOCIETY](#)

Dec 2013 - May 2015 | CSU Northridge Mathematics Department