

## EDUCATION

### UC DAVIS

PHD IN APPLIED MATHEMATICS  
Expected May 2020 | Davis, CA

### CSU NORTHRIDGE

BS IN MATHEMATICS  
May 22, 2015 | Northridge, CA

## LINKS

Github:// [mathman33](#)  
LinkedIn:// [FleischerSamuel](#)

## COURSEWORK

### GRADUATE

Applied Mathematics (3 quarters)  
Applied Analysis (3 quarters)  
Genetics and Evolution  
Mathematical Foundations of Big Data  
Numerical Solutions of Differential Eqns.  
TA Training  
Theoretical Ecology

### UNDERGRADUATE

Ordinary Differential Equations  
Partial Differential Equations  
Independent Study (Stochastic Processes)  
Mathematical Modeling with Mathematica  
Scientific Computing with Python  
Advanced Calculus  
Foundations of Higher Mathematics  
Numerical Analysis  
Complex Variables  
Advanced Linear Algebra  
Undergraduate Seminar (Set Theory)  
Abstract Algebra (2 semesters)  
Probability Theory

## SKILLS

- Extreme passion for mathematics research and applications
- Excellent written and oral communication skills
- Exceptional proficiency in Python, Mathematica,  $\text{\LaTeX}$ , Unix, Git(Hub), C, 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

### UC DAVIS | TEACHING ASSISTANT

Sept 2015 - Present | Davis, CA

- Linear Algebra Lab and Calculus (4.5/5.0 Avg. Student Review)
- UC Davis COSMOS: Guided highschool students design and construct Lego Mindstorm robots and code instructions using RobotC

### NASA, JPL | SOFTWARE COMPUTING SYSTEMS UNDERGRAD. STUDENT

June 2014 - Sept 2015 | Pasadena, CA

- Found and corrected several errors in the implementation of a thermal model of Saturn and its Rings
- Developed software enhancing and refining the Cassini ground software system testing process
- Created automatic generation of vital test artifacts, increasing efficiency, greatly reducing potential for human error

## RESEARCH

### SEBASTIAN SCHREIBER LAB | GRADUATE STUDENT RESEARCHER

Sept 2015 - Present | UC Davis

- Researches various topics in the Applied Mathematical Sciences, specifically Evolution, Ecology, Parasitology, and Epidemiology
- Attends (and occasionally leads) weekly discussions on academic publications
- Develops mathematical models and experiments, performs calculations, and utilizes and improves computational methods
- Develops command line tools (using Python) which automate the creation of relevant graphs to streamline the numerical study of bifurcations and dynamics

### PACIFIC MATH ALLIANCE | PUMP UNDERGRADUATE RESEARCH GROUPS

Aug 2014 - May 2015 | CSU Northridge

- Research/Develop eco-evolutionary ODE models
- Weekly explicit calculations and computational experiments

## SOCIETIES AND VOLUNTEER WORK

### MATADOR MATH SOCIETY | VICE PRESIDENT

Dec 2013 - May 2015 | CSU Northridge

- Assisted president by scheduling colloquiums and meetings
- Oversaw the design and printing of marketing and promotional materials

### ASSOCIATION FOR WOMEN IN MATHEMATICS | SECRETARY

Nov 2015 - Present | UC Davis

- Assisted in the creation and organization of the UCD Chapter of A.W.M.
- Collaborates with groups on campus to raise awareness of resources for minorities

### SOCIETY FOR INDUSTRIAL AND APPL. MATHEM. | VICE PRESIDENT

June 2016 - Present | UC Davis

- Invites scientists, mathematicians, and engineers from outside academia to give talks to UCD graduate students in mathematics and other STEM fields

### STEM CAFE | VOLUNTEER TUTOR

Sept 2016 - Present | UC Davis

- Provides free math tutoring and a safe space for all undergraduate minorities

### CAREER DAY | VOLUNTEER SPEAKER

Oct 2016 - Present | Madison Park Business and Arts Academy

- Shared my experiences as a NASA employee and a mathematics graduate student to under-represented and under-privileged junior-high and high-school students