

# ARJUN SETHI-OLWIN

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## EDUCATION

### PHD IN APPLIED MATHEMATICS, UNIVERSITY OF WASHINGTON, SEATTLE

SEPTEMBER 2023-PRESENT

-GPA: 3.9

### BACHELOR OF ARTS, RICE UNIVERSITY

AUGUST 2020-MAY 2023

-Majored in Mathematics and Computational and Applied Mathematics (CAAM)

-GPA: 3.89

### BACHELOR OF SCIENCE, UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

AUGUST 2019-MAY 2020

## EXPERIENCE

### RESEARCH ASSISTANT, PROFESSOR MATTHIAS HEINKENSCHLOSS

AUGUST 2022 – MAY 2023

-Participating in Professor Heinkenschloss' weekly research group meetings.

-Involved in a parameter estimation project for neurons. My contributions include implement the 2 compartment Pinsky-Rinzel model in Python and solving for the parameters using Pyomo.

### STUDENT RESEARCHER, EMORY REU/RET

MAY 2022 – JULY 2022

-Implemented and compared three methods of solving optimal control problems on the continuous mountain car problem.

### RESEARCH ASSISTANT, PROFESSOR JESSE CHAN, DR. MARIO BENCOMO

JANUARY 2022 – MAY 2022

-Worked with Professor Chan and Dr. Bencomo on utilizing the Finite Difference Method for Partial Differential Equations with varying time-stepping methods.

### ORIENTATION WEEK ADVISOR, RICE UNIVERSITY

AUGUST 2021 – MAY 2022, AUGUST 2022 - PRESENT

-A direct student resource to a group of new students for orientation week as well as over the course of the entire school year including academic and well-being support.

### RICE LEARNING ASSISTANT, RICE CAAM DEPARTMENT

JANUARY 2021 – PRESENT

-A teaching assistant in CAAM 210 at Rice University.

-Preparing and presenting material in weekly lectures, grading student material, hosting office hours.

### GIS STUDENT ASSISTANT, RICE FONDREN LIBRARY GIS DATA CENTER

JANUARY 2021 – PRESENT

-GIS support for ImagineRio, a searchable digital atlas that illustrates the social and urban evolution of Rio de Janeiro.

-Developing and teaching courses on GIS tools at Fondren Library to Rice students and the public.

### RESEARCH ANALYST, HEALTH SOLUTIONS RESEARCH

JUNE 2019 – SEPTEMBER 2019, JUNE 2018 – AUGUST 2018

### INTERN, NATIONAL INSTITUTES OF HEALTH (NIH)

JUNE 2017 – AUGUST 2017

-Independent research on the Effect of Szechuan Pepper on the Zebrafish Lateral Line System, Dr. Chitnis' lab.

## RELEVANT COURSEWORK

### 2023-2024

AMATH 515: Fundamentals of Optimization

AMATH 561: Intro to Probability and Random Processes

AMATH 563: Inferring Structures of Complex Systems

AMATH 567: Applied Complex Analysis

AMATH 568: Advanced Methods for ODEs

AMATH 584: Applied Linear Algebra

- AMATH 585: Boundary Value Problems
- AMATH 585: Numerical Methods for PDEs
- AMATH 590: Gradient Flows

## AWARDS AND HONORS

- EMORY 2022 REU FIRST PRIZE POSTER
- UIUC 2019 FALL DEAN'S LIST

## SKILLS

- MS SUITE, ARCGIS, MATLAB, PYTHON, PYTORCH, TENSORFLOW, PYOMO, CVXPY, LATEX, TABLEAU