

# Daniel Hodgins

PhD Student

🏠 <https://danielhodgins.github.io/> | 🌐 DanielHodgins | in daniel-hodgins-811b90270/

## Education

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### Auburn University

PhD, Mathematics

*Auburn, AL*

May 2029

### University of South Alabama

MS, Mathematics

- Thesis Track
- GPA of 4.0

*Mobile, AL*

May 2024

### University of South Alabama

BS, Mechanical Engineering and Mathematics

- Concentration: Aerospace Engineering.
- GPA of 3.49

*Mobile, AL*

May 2023

## Job Experience

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### Graduate Assistant

Department of Mathematics and Statistics Auburn University

- Teaching Assistant for Linear Algebra
- Grader for Linear Algebra, PreCalculus Algebra and Trigonometry
- Tutor for math courses

*Auburn AL*

August 2024 - present

### Graduate Assistant

Department of Math and Statistics University of South Alabama

- Ran recitation section for two Calculus I classes
- Proctored exams and quizzes
- Created worksheets
- Tutored in the Math Lab

*Mobile, AL*

August 2023 - May 2024

### College Assistant

Math Corps University of South Alabama

*Mobile, AL*

May 2023 - June 2023

### Tutor

University of South Alabama College of Engineering

- Tutored Calculus based Physics, Calculus I, and Calculus II

*Mobile, AL*

August 2022 - December 2022

## Grader

University of South Alabama College of Engineering

Mobile, AL

August 2021 - May 2022

- Graded homework and quiz assignments for thermodynamics

## Technical Skills

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<b>Programming</b>	Python, CircuitPython, L <sup>A</sup> T <sub>E</sub> X, HTML
<b>Professional Softwares</b>	Zoom,
<b>Drawing &amp; Typesetting</b>	Tiled, Microsoft Office, Google files, L <sup>A</sup> T <sub>E</sub> X, Paint 3D, OBS Studio, Astah SysML, LibreOffice
<b>Languages</b>	English (Native)

## Projects

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### Remote Control Water Aircraft

Designed a low wing loading aquatic RC aircraft capable

Mobile, AL

January 2022 - April 2022

### Remote Control Luggage Aircraft

Design, Build, Fly Senior Design Team Project

Mobile, AL

August 2022 - April 2023

- Two sets of interchangeable wings
- Fits in a suitcase size box

### Morse Code Game

Circuit Playground Bluefruit Project

Mobile, AL

August 2021 - December 2021

- Runs circuit python
- Interactive teaching tool to learn Morse Code
- Difficulty changes with skill of user

### Eagle Scout Project

Bookshelf for a local elementary school and a drop off box for Ronald McDonald House Mobile, AL

Semmes, AL & Mobile, AL

2018

## Awards and Honors

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Spring 2023	<b>Scholarship/Contest:</b> "Chris Nash Special Award (Highest Score) "	Mobile, AL
Spring 2022	<b>Honor Society:</b> "TIME Math Honor Society"	Mobile, AL
Spring 2022	<b>Honor Society:</b> "Mortar Board Senior Honor Society"	Mobile, AL
Spring 2022	<b>Scholarship:</b> "Department of Mechanical Engineering Scholarship"	Mobile, AL
Spring 2022	<b>Scholarship/Contest:</b> "Chris Nash Scholarship (Second Highest Score) "	Mobile, AL
Spring 2022	<b>Scholarship:</b> "Department of Mathematics and Statistics"	Mobile, AL
Spring 2021	<b>Scholarship/Contest:</b> "Chris Nash Scholarship (Highest Score) "	Mobile, AL
Spring 2021	<b>Scholarship:</b> "Department of Mathematics and Statistics"	Mobile, AL
Spring 2018	<b>Award/Achievement:</b> "Eagle Scout"	Mobile, AL

## Volunteer Services

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### Camp Make Arthritis Stop Hurting (MASH)

Camp Counselor

*Mobile, AL*

June 2018-2019, 2021-Present

- Camp MASH is a camp for kids with juvenile arthritis
- 2020 was cancelled due to pandemic

### Math Carnival

Facilitator

*Auburn, AL*

Fall 2024-Spring 2025

- Created materials for and ran math activities for middle school and high school students
- The Math Carnival was held at Destination STEM and ASEF

### Julia Robinson Math Festival (JRMF)

Facilitator

*Online*

March 2021-Present

### JRMF

Online Space Creator

*Online*

May 2021-December 2022

- Created and designed rooms for math festivals on Gather.Town
- Designed and implemented rook mazes, and designed other prototype mazes

### JRMF Community Math Circle

Steering Committee Member

*Online*

January 2022-Present

- Facilitate at Math Circles
- Plan Math Circles and training sessions

### Gaming Conventions

Game Demo Volunteer and Convention Volunteer

*Gulf Coast*

2018-Present

- Mobicon
- Coastcon
- GnG Cons

## Conferences and Workshops

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### AMS Spring Southeastern Sectional Meeting

Attendee

*Clemson University, Clemson, SC*

March 8-9, 2025

- A conference focused on math research.

### 33rd Cumberland Conference

Short Talk

*Mississippi State University,*

*Starkville, MS*

May 18-19, 2024

- Title of talk: Embedding Graphs on the Square Grid
- A conference focused on Combinatorics, Graph Theory, and Computing.

## **Troy MathFest**

Short Talk

- Title of talk: Embedding Graphs on the Square Grid
- A primarily undergraduate conference that is focused on math research.

*Troy University, Troy, AL*

April 12-13, 2024

## **Math For All**

Short Talk

- Title of talk: Embedding Graphs on the Square Grid
- A conference focused on both math research and mathematics education.

*Tulane University, New Orleans,*

*LA*

April 5-6, 2024

## **AMS Fall Southeastern Sectional Meeting**

Attendee and worker

- Helped with the setup and clean up of the conference.
- A conference focused on math research.

*University of South Alabama,*

*Mobile, AL*

Oct 13-15, 2023

## **Troy MathFest**

Attendee

- A primarily undergraduate conference that is focused on math research.

*Troy University, Troy, AL*

April 14-25, 2023

## **Math For All**

Attendee

- A conference focused on both math research and mathematics education.

*Tulane University, New Orleans,*

*LA (virtual)*

February 4-6, 2022

## **Circle On The Road 2021**

Attendee

- A workshop on Math Circles.

*Virtual*

July 14th - 16th, 2021

## **70th Meeting of the AACTM**

Attendee

- AACTM stands for Alabama Association of College Teachers of Mathematics
- A conference focused on both math research and mathematics education.

*University of South Alabama,*

*Mobile, AL*

February 15, 2020