

# PIERSON LIPSCHULTZ

Piersonlipschultz@gmail.com ♦ <https://www.piersonl.com/> ♦ 312-292-7673 ♦ [GitHub](#)  
Astronomy + Datascience

## RESEARCH EXPERIENCE

### College of DuPage

Glen Ellyn, IL

Honors Independent Study ♦ [GitHub](#) ♦ [Publication](#)

1/2025 - 5/2025

- Wrote a paper discussing the processes of mass transfer in binary stars
- Combined observational and simulated data
- Used Python to compare a dataset of a million simulated binaries with their observed counterparts
- Utilized  $\text{\LaTeX}$  to allow for greater efficiency
- Published in the Digital Commons

### CIERA, Northwestern University

Evanston, IL

REACH Further ♦ [GitHub](#) ♦ [Visualizations](#)

6/2024 - 7/2024

- Worked with mentor Ilia Kiato assisting with research
- Project one: Researched and cataloged X-ray binary simulation data using python tools.
- Developed a system for analyzing subpopulations using Bokeh and a GitHub Site.
- Project two: Researched natal kick velocities in Black Holes, recreating the results of the paper A Black Hole Kicked At Birth: MAXI J1305-704.
- Created visualizations of the processes of the paper.

## EDUCATION

### University of Urbana-Champaign

Urbana-Champaign, IL

Astronomy + Datascience

5/2025 - Current

### College of DuPage

Glen Ellyn, IL

Honors Scholar

8/2024 - 5/2025

## RESEARCH SKILLS

Blender

$\text{\LaTeX}$

Python

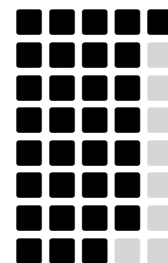
Pandas

Bokeh

Matplotlib

Git

Tinker



## OUTREACH

### President and Founder, COD Space Club

Glen Ellyn, IL

<https://codspace.club/>

1/2025 - 5/2025

- Grew club to  $\approx 70$  members in 2 semesters
- Hosted numerous outreach events including a booth [STEMCON](#)
- Observing nights and field trips to places including Fermilab

### Lead Ambassador, Stories of Space

Glen Ellyn, IL

<https://www.storiesofspace.com/>

2/2025 - Current

- Leading mission 4
- Helping coordinate large scale collaborations
- Marketed and encouraged college student engagement with space.

## Project Head, *High Altitude Weather Balloon Collaboration*

<https://sites.google.com/view/stories-of-space-project/>

- Helping coordinate large scale collaborations
- Marketed and encouraged college student engagement with space.
- Currently working in charge of Mission 4

Glen Ellyn, IL

2/2025 - 7/2025

## TALKS

### Student Speaker, *College of Dupage*

[COD Library Student Research Symposium](#)

- Presented an in-depth exploration of the processes of mass transfer in binary stars

Glen Ellyn, IL

5/12/2025

### Guest Speaker, *Northwest Suburban Astronomers*

<https://www.nsaclub.org/>

- Presented an overview of binary star properties, including X-Ray binaries, mass transfer, and stellar evolution
- Audience of  $\approx 50$  people.

Barrington, IL

2/7/2025

## PUBLICATIONS

### Mass Transfer in Binary Stars

[Digital Commons](#)

Glen Ellyn, IL

5/2025

### Photography

[Prairie Light Review](#)

Glen Ellyn, IL

5/2025

## PRESS

### Student Spotlight, *College of DuPage*

<https://www.cod.edu/about/stories/students/lipschultz.html>

Glen Ellyn, IL

1/2025

### *STORIES of Space and College of DuPage students ... weather balloon launch*

[Daily Herald](#)

3/26/25

## PROJECTS

### Python Module for graphing HR diagrams of POSYDON Datasets

Independent Project ◊ [Example](#) ◊ [GitHub](#)

- Allows user to easily create elegant and publishing ready graphs in either Matplotlib or Bokeh
- Creates HTML viewing files to allow the user to quickly understand a dataset (*see [link](#)*)
- Written for an out-of-the-box solution while still allowing deep configuration

5/2025 - Current

### Custom Astrophotography Mounting Rig

Independent Project ◊ [Photos](#)

- Custom designed in CAD software (Fusion360)
- 3D printed in high-strength materials to allow for long-term use

5/2025 - Current

## ART

### Photography

Independent and Academic ◊ [Photographs](#)

- Experienced with Sony and Canon DSLRs
- Multiple photographs published

12/2024 - Current

### Astrophotography

Independent ◊ [Photographs](#)

- Custom assembled rig for taking pictures of faint deep sky objects
- Experienced with various AP tools, including NINA, PixInsight, BXT, Siril, PHD2, and more

5/2024 - Current