

Aiden Zelakiewicz

STUDENT · UNDERGRADUATE RESEARCHER

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Education

The Ohio State University

BS IN PHYSICS AND ASTRONOMY & ASTROPHYSICS

Columbus, Ohio

Expected Graduation: May 2023

- Cumulative GPA of 3.90
- Five-time Dean's List recipient
- Relevant Coursework: Computational Physics, Quantum Mechanics, E&M, Astro Data Analysis, Linear Algebra, Differential Equations

Research Projects

Mapping NIR Extinction Towards the Galactic Center

Columbus, Ohio

ADVISOR: SAMSON A JOHNSON

May 2021 - PRESENT

- Creating near-infrared extinction and reddening maps for the *Nancy Grace Roman Space Telescope* microlensing survey using H- and K-band photometry data from the UKIRT observatory's microlensing survey. This is in collaboration with and advised by OSU graduate student, Samson A Johnson and sponsored by Dr. Scott Gaudi.
- Project was primarily programmed in Python where Red Clump photometry data was fit to a luminosity function. The resultant parameters could then be used to determine the extinction and spectral reddening. To produce these calculations, packages such as NumPy, Lmfit, Astropy, SciPy, Matplotlib, and Pickle were used. This was conducted across numerous Python and data files, all managed using git to keep track of versions.
- A first author paper detailing this project is currently in the works. It is expected to be ready for publication by the end of the 2021-2022 academic year.

Skills

| | |
|--------------------|--|
| Programming | Python, C++, Wolfram, Bash, LaTeX |
| Technology | Git & GitHub, Visual Studio Code, Mathematica, Premiere Pro, Lightroom |
| Systems | Windows, Mac OS, Linux (WSL) |
| Languages | English - Native, French - Working Proficiency, Japanese - Basic |

Work Experience

The Ohio State University

Columbus, Ohio

UNDERGRADUATE RESEARCHER

May 2021 - PRESENT

- Working with graduate student Samson A Johnson to create near-infrared extinction and reddening maps towards Galactic Center
- Utilized H- and K-band photometry data from UKIRT fields.

Park Place Cafe

Milwaukee, Wisconsin

WAITER

May - Aug. of 2019 & 2020

- Critical time management skills under high stress situations
- Communication and general people skills

Honors & Awards

- 2021 **Tuttle Scholarship**, Recognizes outstanding astronomy majors, nominated by faculty.
- 2019-2021 **Dean's List (5 out of 5 semesters)**, The Ohio State University

Columbus, Ohio

Columbus, Ohio

Extracurricular Activity

Buckeye Gaming Collective

Columbus, Ohio

COMPETITOR & VOTING MEMBER

Aug. 2020 - PRESENT

- Manager and captain of a nationally ranked team.
- Managed tryouts for a fielded roster.
- Organized broadcasts and handled tournament fees.

Delta Sigma Phi Fraternity

HISTORIAN & ASSISTANT NEW MEMBER EDUCATOR

- Oversaw and produced media used for social pages.
- Assisted training and mentoring new members.

Columbus, Ohio

Mar. 2020 - PRESENT