

Alex Michael Garcia

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Education

University of Florida

Aug 2021 – May 2023

Master's of Science in Astronomy

Research Advisor: Paul Torrey

University of Illinois

Aug 2017 – May 2021

Bachelor's of Science in Engineering Physics - *Honors*Bachelor's of Science in Astronomy - *Distinction*

Research Experience

Graduate Researcher

May 2021 – Present

University of Florida - Advisor: Paul Torrey

Gainesville, FL

- Utilize high-performance computer, [HiPer Gator], to analyze data of Illustris TNG simulations.
- One first-authored paper in progress.

Undergraduate Research Assistant

Feb 2021 – May 2021

University of Illinois - Advisor: Yue Shen

Urbana, IL

Undergraduate Research Assistant

Aug 2020 – May 2021

University of Illinois - Advisor: Bryan Dunne

Urbana, IL

Teaching Experience

Astronomy Teaching Assistant/Grader

Aug 2020 – Present

University of Florida

Gainesville, FL

University of Illinois

Urbana, IL

	Course	Semester	Professor(s)
University of Florida	AST 1002 - <i>Discovering the Universe</i>	Fall 2021	Paul Sell, Naibi Mariñas, & Elizabeth Lada
University of Illinois	ASTR 330 - <i>Extraterrestrial Life</i>	Spring 2021	Xin Liu
	ASTR 330 - <i>Extraterrestrial Life</i>	Winter 2021	Leslie Looney
	ASTR 100 - <i>Introduction to Astronomy</i>	Fall 2020	Amanda Winans
	ASTR 150 - <i>Killer Skies: Astro-Disasters</i>	Fall 2020	Bryan Dunne

- Host a virtual weekly office hour for students to come and ask questions pertaining to the course material and evaluations.
- Host observatory sessions at the campus teaching observatory for students in the course to attend. Includes setting up an array of telescopes and fielding student questions on their assignments.

Part-Time Specialist

Aug 2021 – Present

Santa Fe College – Kika Silva Pla Planetarium

Gainesville, FL

- Design, develop, and present planetarium shows for K-12 classes and the general public.
- Assist the planetarium manager in developing of programs to support collegiate level curriculum.

Course Instructor

Summer 2021

qBraid – QuBes Course

Remote

- Co-hosted 90-minute, weekly lectures on introductory Quantum Computing. Course intended for high school-aged students interested in pursuing STEM education over the summer.
- Collaborated with co-instructor on the best methods of delivery and presentation of the materials.
- Maintained a course webpage for the students to reference, publishing updates on a weekly basis.

Tutor

Aug 2018 – May 2021

Center for Academic Resources in Engineering (CARE) – UIUC

Urbana, IL

- Guided students towards success in various homework assignments in a number of different disciplines. Subjects included: introductory mechanics, electricity & magnetism, quantum mechanics, thermodynamics, calculus, intro to python, differential equations, and linear algebra.
- Planned and led small group presentations for specific courses and present to students in order to help them succeed on exams.
- Analyzed the data on traffic of incoming students with python and created LaTeX reports of monthly attendance, broken up into several different categories.
- Created and maintained LaTeX worksheets for peer-led exam review sessions in several math and physics courses.

Visual Instructor

Aug 2018 – Aug 2021

Lincoln-Way Marching Band (LWMB)

Frankfort, IL

- Assisted on the field teaching students how to perfect and perform an eight-minute field show. Included teaching management of simultaneous demand and awareness.
- Worked within a group of staff members on lesson plans and communicated on how to most effectively budget and allocate time to improving the overall product.

Committees

University of Florida Department of Astronomy Committee for Diversity, Equity and Inclusion
Graduate Representative – *Fall 2021*

Technical Skills

Fluent: Python, L^AT_EX (Tikz), Microsoft Office

Literate: Bash, SLURM, HTML, CSS, R, Origin Pro, Java/JavaScript

Honors and Awards

University of Illinois Tutor of the Year Honorable Mention

Spring 2021

University of Illinois Tutor of the Year Finalist

Spring 2021

Dean's List, College of Liberal Arts and Sciences – UIUC

Fall 2020

Dean's List, Grainger College of Engineering – UIUC

Spring 2018, 2019

Access and Achievement Scholar – UIUC

Fall 2017 – Spring 2021

Eagle Scout, Boy Scouts of America

April 2015

Activities

Bluecoats Drum and Bugle Corps

Summer 2019, 2020, 2021

Madison Scouts Drum and Bugle Corps

Summer 2017, 2018