

Xander Jenkin

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Education

Sep 2021—May 2025 **Princeton University**
A.B., Astrophysics,
Medieval Studies Minor
For more details, visit xanderjenkin.com/academics for relevant coursework

Research Experience

- Sep 2024—May 2025 **Estimating the mass of galaxy M95's supermassive black hole**
Senior Year Thesis Project, Princeton University
Estimating the mass of the supermassive black hole of M95 via its disk dust kinematics from ALMA data, advised by Dr. Jiayi Sun and Dr. Jenny Greene
- Summer 2024 **A comprehensive Type Ia Supernovae UV spectra library for STIS**
Research Intern, Space Telescope Science Institute
Generated a queryable library of multi-wavelength template spectra of Type Ia supernovae for the STIS exposure time calculator under Dr. Matt Siebert
- Jan—May 2024 **"An Analysis of Local Universe Fast Radio Bursts"**
Junior Year Independent Research Project (Spring), Princeton University
Building off of my previous Fall project, I did deeper analysis of the structure, timing, and environments of those bursts, also advised by Dr. Dongzi Li
- Sep—Dec 2024 **"Searching Local Universe Fast Radio Bursts"**
Junior Year Independent Research Project (Fall), Princeton University
I successfully identified two new Fast Radio Bursts from known repeating sources using the FAST radio observatory, advised by Dr. Dongzi Li
- Summer 2023 **Searching for high-redshift galaxy protoclusters using ALMA**
Research Intern, Cardiff University School of Physics and Astronomy
Confirmed the existence of a new high-redshift galaxy protocluster using radio data from the ALMA Observatory under Dr. Steve Eales and Dr. Matt Smith, trip sponsored by Princeton IIP (International Internship Program)
- Sep 2022—May 2023 **Designing an Absolute Beam Monitor for vacuum calibration**
Lab Researcher, Princeton Space Physics Lab, AST250-251 Course Sequence
Developed NASA space flight instrumentation under Dr. David McComas & Dr. Jamie Rankin, and carried out a group (10) research project to design & build an Absolute Beam Monitor for the IMAP solar wind mapping mission
- Sep 2022—May 2023 **Working to compute the redshifts of galaxies for LSST**
Research Assistant, Princeton University Astrophysics Department
Worked with algorithms in Python to estimate the redshifts of galaxies in preparation for the future Vera Rubin LSST under Dr. Arun Kannawadi
- Summer 2022 **"Smoothing out HLLC's 'carbuncles' in Fluid Shock Simulations"**
Undergraduate Researcher, Princeton Astrophysics Department
Modelled interstellar shockwaves using computational fluid dynamics simulations in Fortran under Dr. Romain Teyssier

Honors & Awards

- Dec 2020 **QuestBridge Scholar**
Matched to Princeton University through the QuestBridge National College Match
QuestBridge matches high-achieving first-generation, low-income (FLI) high school students to full-ride scholarships at top universities

Talks & Posters

- Aug 2024 **STScI Summer Research Program Symposium**
Contributed Talk, Space Telescope Science Institute
- Aug 2023 **International Internship Program Research Symposium**
Poster, Princeton University
- Jul 2023 **Cardiff University Summer Research Symposium**
Contributed Talk, Cardiff University
- Jul 2023 **Princeton Astrophysics USRP Symposium**
Contributed Talk, Princeton University

Conferences Attended

- Oct 2024 **IvyG 2024 Conference**
Brown University
- Jul 2023 **National Astronomy Meeting 2023**
Cardiff University
- Feb 2023 **IvyG 2023 Conference**
University of Pennsylvania

Activities

- Sep 2023—May 2024 **Research Correspondent, Office of Undergraduate Research**
Princeton Correspondents on Undergraduate Research (PCUR)
Authored various articles that range all aspects of the undergraduate research experience (pcur.princeton.edu/author/xander-jenkin/)
- Feb 2023— **IvyG Summit Ambassador, Princeton University**
IvyG Summit Conferences
Current head student ambassador for Princeton (previously just attendee), which fully coordinates for Princeton students to attend IvyG conferences
- Sep 2022— **Head Fellow, Princeton Scholars Institute Fellows Program**
Princeton Scholars Institute Fellows Program
Currently a Head Fellow for Princeton's Emma Bloomberg Center (previously just a member), who mentors incoming FLi students and hosts events