

# Ana Cristina Scigliani

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## EDUCATION

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### **The Pennsylvania State University**

*Astronomy and Astrophysics B.S., Minor in Mathematics*

Cumulative GPA: 3.50

**State College, PA**

*December 2025*

### **Colegio Brader**

*Degree in Sciences with Honors in Physics, Calculus and American Literature*

Cumulative GPA: 4.8/5.0

**Panamá City, Panamá**

*December 2020*

## WORK EXPERIENCE

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### **High Energy Astrophysics Detector and Instrumentation (HEADI) Lab**

*BlackCAT Research-Assistant*

**State College, PA**

*January 2023-Present*

- Performed reduction and analysis on raw test data: correcting for dark current and pedestal bias, creating event lists, producing histograms, calculating energy resolution, pixel noise, and more.
- Developed a full-scale model of the satellite using SolidWorks and fitted mechanical designs for printing.
- Assisted the short gamma-ray burst (SGRB) simulations team. Fetched data from Swift and Fermi missions and fitted them to an evolving model as a function of their photon index, used luminosity and redshift distribution functions to simulate detectable SGRBs by BlackCAT based on Swift data.
- Coded several Python-based scripts for advanced file handling and data processing algorithms.

### **Bernard M. Gordon Learning Factory**

*Engineering MakerSpace Student Supervisor*

**State College, PA**

*June 2022-August 2023*

- Facilitated training for hundreds of students every semester on using woodshop equipment such as miter saws, planers, CNC routers, bandsaws, and more.
- Operated Laser cutter and Waterjet for costumers, including adapting their designs to fit the software.
- General safety supervising for students in the Maker Space and several management tasks.

### **Techo Panamá**

*Volunteer and Fundraiser Leader*

**Panamá City, Panamá**

*September 2017 - October 2021*

- Participated in home and school constructions for low-income communities
- Followed living conditions afterwards for up to 5 months presented reports to supervisors.
- Led 2020 Christmas Fundraiser: recruited and managed over 150+ volunteers, raising over \$10k for future constructions over the course of two months.

## GRANTS

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### **IFARHU-SENACYT**

*"Excellency Scholarship for Undergraduate Studies"*

**Panamá City, Panamá**

*2022*

- The most prestigious award granted by Panamanian government to students who have excelled in STEM fields. Covers entire cost of undergraduate studies.

## SKILLS

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Fluent in Spanish and English, Python, Machining, Woodworking, 3D Modeling, Welding.