

Countless Career Paths!

Analysis and Data Science

- Business analyst, medical data analyst, financial analyst, or data scientist at various companies

Astronomy

- Astronomer/technician at a telescope or government facility
- Professor at a college or university

Consulting

- Technical consultant at aerospace, software and other technical-oriented firms

Energy

- Scientist or technician working in energy research & development for the public or private sector

Management

- Manager of research funds at various institutions
- Project manager at a tech company

Medical Physics

- Medical physicist working in diagnosis, research, treatment, or with equipment at hospitals or clinics

Meteorology or Climate Science

Patent Law

- Patent examiner or attorney at a national or international patent office or private legal firm

Science Administration

- Director of operations or program/project leader at educational, government, or research institutions

Science Communication

- Public outreach advocate at museums or science centers

Science Journalism & Publishing

- Science reporter or editor for a news organization
- Press officer at scientific institutions

Science Policy

- Staff member at various government and other organizations who advocates and informs policy-making

Scientific Translation

- Translator of scientific or technical texts

Space & Aeronautics

- Scientist or engineer at aeronautics companies in the private sector or government space agencies

Teaching

- Teacher at schools or colleges

Technology & Engineering

- Software developer
- Information Technology (IT) specialist

Skills List

Surprise! You may not have expected that the following skills are developed by people who pursue astronomy professionally.

- Writing for different audiences (scientists and non-scientists)
- Public speaking & presentation skills
- Team leadership and collaboration, often with groups of people far away
- Creative thinking & problem-solving
- Mathematics and physics
- Computer science and programming

Learn more...

- **Letters to a Young Scientist**
by Edward O. Wilson
- **Northwestern's Physics & Astronomy Graduate Study**
<https://www.physics.northwestern.edu/graduate/>
- **American Astronomical Society's Careers in Astronomy**
<https://aas.org/learn/careers-astronomy#employment>
- **American Institute of Physics**
<https://www.aip.org/career-resources>
- **Types of Careers at the National Science Foundation**
<https://www.nsf.gov/careers/careertypes/>

Pathways to a Career in Astronomy

Northwestern



CIERA Pathfinder Series
Explore more by scanning →



My Story

Erin Cox,
**SkAI Assistant Director of
Education and Outreach**



In college, I started as a Business Major and wanted to go into Marketing. After two or three years, I realized this wasn't for me and decided to change to Astronomy and Physics. I was lucky that my college has an amazing Astronomy department and we had many opportunities to physically go to telescopes. Visiting telescopes and observing either for class or research was so fun and I miss having that opportunity!

My Story

Miguel Martinez,
Graduate Student



As a child, I was interested in space but I never seriously considered astronomy until college. After exploring different fields of physics, the first detection of gravitational waves by LIGO inspired me to study gravitational dynamics and astrophysics. Through this, I developed a strong interest in using mathematical reasoning and computational tools to solve complex problems. If I could do it all again, I would probably want to learn more about the physics of fluids.

My Story

Emma Kaufman,
Graduate Student



I decided to pursue astronomy after my first experience doing astronomy research. Though I previously worked in biophysics, I found astronomy far more engaging, with new and exciting challenges every day. Looking back, I'd advise my younger self to strengthen my math skills, as they're crucial for success in astronomy.

Elementary School

- Ask questions
- Read for fun

High School

- Find a creative outlet
- Learn computer programming

College

- Work on a research project
- Take applied math & statistics classes

Graduate School

- Talk to people about their careers
- Develop communication & presentation skills

What to think about when you're preparing for your future in Astronomy

My Story

Wen-Fai Fong, Professor

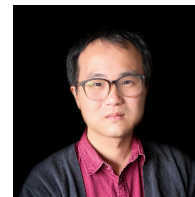


I wish I had taken more leadership and/or management classes. A lot of being a professor is learning how to manage a group. These skills are often learned in real-time which of course is not ideal.

I also wish I had held a job outside of academia, just to be able to contrast the career that I ended up choosing. I have no regrets about my career path, but now that I'm set in my career, it's difficult to experience what another job setting (for instance, in industry) would look like. I wish I had had that experience!

My Story

Jiaru Li,
Postdoctoral Fellow



I spent two years of my undergraduate studies doing research with a quantum chemistry professor, but I was unsure if I wanted to become a molecular physicist. What then led me to pursue a Ph.D. in astronomy and astrophysics was actually quite random: a video from an astrophysical hydrodynamical simulation. In hindsight, the video wasn't remarkable at all, but I was immediately fascinated by the animation. I then did a summer research project in astronomy, and ultimately decided to pursue a career in it.

My Story

Nathalie Jones,
Graduate Student



I loved physics classes in high school but decided to attend a liberal arts college to explore all of my interests, including music and history. My love for physics won out and I pursued the major and even worked in a few research labs. I chose an astrophysics project for my senior thesis and loved it so much, I decided to go to grad school. I'm grateful for the experiences outside of science and feel that time spent learning about art history and singing in choir makes me a better researcher!