

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>
- **Jobs for Astronomers**
<http://www.jobsforastronomers.com>
- **American Institute of Physics**
<https://www.aip.org/career-resources>
- **NASA "My Everyday Extraordinary"**
<https://www.nasa.gov/careers/my-everyday-extraordinary>
- **Types of Careers at the National Science Foundation**
<https://www.nsf.gov/careers/careertypes/>

Pathways to a Career in Astronomy

CIERA Pathfinder Series

Northwestern



My Story

Nancy Aggarwal, Postdoctoral Fellow



I veered into astronomy last year after having spent the last seven years in precision quantum measurements. I found myself thinking increasingly more about the Universe. I started to get fascinated by questions of formation of the Universe, dark matter, nature of gravity and quantum gravity. I guess I still have not decided where I will land in this complicated Venn diagram of quantum physics, astronomy, cosmology, and precision measurements.

My Story

Candice Stauffer, Graduate Student



I went into college thinking I was going to major in music. I spent my first year studying music theory, classical guitar, and bassoon. After enjoying my math classes so much, I decided I wanted to study Physics.

I spent a lot of time in undergrad worrying about getting the perfect grade and perfect test scores. If I could go back I would tell myself to focus on learning and enjoying the material.

My Story

Shi (Claire) Ye, Graduate Student



I joined an astronomy club in high school. We would go out during lunar eclipses or meteor showers to do observation with small telescopes.

I was very interested in biology in high school too. I took biology 101 to see what it's like to study biology in universities. It turned out that I like to learn about theories about animals, but I don't like the anatomy part!

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

Deanne Coppejans, Postdoctoral Associate



I was actually studying for a career in medical research or biophysics. I only decided to pursue astronomy as a career in the final year of my undergraduate physics degree.

Although I was interested in astronomy, I had never really considered it as a career option before then. That changed when I saw that South Africa (my home country) was applying to build the largest radio telescope in the world - the Square Kilometre Array. That opened my eyes to all the exciting opportunities in astronomy.

My Story

Jonathan Stern, Postdoctoral Fellow



I was almost 30 when I decided to pursue a career in astronomy. I was working as an algorithm developer in a startup company for video streaming. At some point the industry decided to shift away from our type of products. I was pretty devastated. I was also working on a data analysis project for an astrophysics professor. The contrast between the everlastingness of studying the Universe and the ephemeral market forces was just so evident. Since then I've been full-time in astronomy.