

Dream Jobs: Solar system ambassador

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Astronomer Derrick Pitts examines a telescope owned by Galileo Galilei that was on display at his museum, the Franklin Institute in Philadelphia, Pennsylvania. Photo: NASA.gov.

Derrick Pitts is the chief astronomer and planetarium director at the Franklin Institute, which is a science museum and research center in Philadelphia. He has also been a Solar System Ambassador since 2009. The Solar System Ambassador program is NASA's nationwide public outreach program that has volunteers all around the country teach others about space exploration and missions. These volunteers host special events to educate their communities. There are 700 ambassadors in 50 U.S. states and territories. NASA chooses space enthusiasts, like Pitts, to spread excitement and knowledge about space.

Where are you from?

I was born and raised in Philadelphia.

Describe the first time you made a personal connection with outer space.

There are three instances when I had realizations about the sky before I was 12.

First, as a child, I was enthralled with the rockets of the space program and that astronauts fly in space. The second, was when I realized that my street ran east-west and the adjacent street ran north-south to form a T and that I could use this to set up a solar clock to read the motion of Earth in the solar system.

The third was when I went out onto my street to look up at the sky after reading a "Scientific American" article about how the most distant galaxies told the story of the expansion of the universe. I looked into the sky with a totally different understanding of it than I had just a few hours before.

How did you end up working in the space program?

I actually always knew I would work in either astronomy or space sciences, and this was the only career path ever on my list of job possibilities. I was hired by the Franklin Institute to work in the observatory when I was a junior in college and that turned into full-time employment when I graduated, with great work and educational experiences ever since.

Who inspired you?

As a kid, I didn't know any scientists, but I'd read about all kinds of scientists, so even though it didn't immediately come to mind as a typical career choice for a young black kid in an inner-city neighborhood, I also knew it wasn't completely ridiculous either. There was just no guidance for a kid with such dreams. I suppose I was inspired to pursue science by an eighth-grade science teacher I had, but astronomy intrigued me. For the first 17 years of my life, the greatest scientific endeavor ever of putting people on the moon hit a new milestone every year. The work of astronomers who sought to understand the nature of the expansion of the universe, like Maarten Schmidt and Alan Sandage, was inspirational to me.

What is a chief astronomer and planetarium programs director?

I develop and oversee all of Franklin's astronomy and space science-related programs and exhibits and run the observatory. I also create programs for the planetarium, frequently lead the live "Sky Tonight" planetarium show, teach astronomy workshops, and even do a bit of science on TV. Sometimes I take a call from someone who is positive the UFO they've seen is actually an alien spacecraft. Once, I helped President Barack Obama's family look through a telescope on the White House lawn.

Tell us about a favorite moment so far in your career.

I sat waiting for a train home after work one day about eight years ago. A young man came over, seemingly out of nowhere, and said: "Mr. Pitts, you don't know me but I've watched you since I was a kid and your work inspired me to become a scientist, and I love it."

Thanks!" and he walked off into the crowd. My other favorite moments are when I help people see an object through a telescope for the first time. For me, nothing beats seeing the light bulb come on!

What advice would you give to someone who wants to take the same career path as you?

Be creative, be flexible and most of all, be prepared and able to communicate. Realize that while there may not be very many positions in astronomy research, there are lots of other equally satisfying possibilities in related fields. And more importantly, we desperately need people who can teach science.

What do you do for fun?

I do science! No, seriously, I travel and explore for fun. It's a fascinating world and I can't get enough of it. But I'm always doing "science" of some kind no matter where I am. I love it. I can't escape it and wouldn't want to. Eat. Breathe. Do Science. Sleep later.

If you were talking to a student interested in science and math or engineering, what advice would you give him or her?

Find people – lots of people – doing what you think you're interested in and spend a day with them. Go to a college or university with that degree track and talk to the professors and the students. Go to a business in the industry and talk to someone who has been in the field for a long time. If it doesn't look like there's anyone doing what you want to do, then you can be the first one to do it.

Quiz

- 1 According to the article, it is the job of Solar System Ambassadors to spread excitement and knowledge about space.

Which selection below is the BEST piece of evidence that Pitts has done this?

- (A) I actually always knew I would work in either astronomy or space sciences, and this was the only career path ever on my list of job possibilities.
- (B) I also create programs for the planetarium, frequently lead the live "Sky Tonight" planetarium show, teach astronomy workshops, and even do a bit of science on TV.
- (C) "Mr. Pitts, you don't know me but I've watched you since I was a kid and your work inspired me to become a scientist, and I love it. Thanks!"
- (D) Realize that while there may not be very many positions in astronomy research, there are lots of other equally satisfying possibilities in related fields.

- 2 Which idea is BEST supported by the selection below?

As a kid, I didn't know any scientists, but I'd read about all kinds of scientists, so even though it didn't immediately come to mind as a typical career choice for a young black kid in an inner-city neighborhood, I also knew it wasn't completely ridiculous either. There was just no guidance for a kid with such dreams.

- (A) Pitts followed his own path even though it seemed like an unusual choice.
- (B) Pitts read a lot about all different kinds of things when he was a child.
- (C) Pitts had to get introduced to many scientists before he was sure he liked science.
- (D) Pitts was told by some people growing up that his dream was ridiculous.

- 3 What is the relationship between the first and final paragraphs of the article?

- (A) The first lists the achievements in Pitts' professional background and the final explains what he has done with those achievements.
- (B) The first outlines the programs Pitts is involved with and the final gives his explanation to others for how to get involved.
- (C) The first describes the number of Solar System Ambassadors and the final gives specific details for where to meet them.
- (D) The first illustrates the interest of Pitts in the field of astronomy and the final demonstrates how he first got involved in the field.

4 Read the section "What do you do for fun?"

Why does the author include this paragraph in the article?

- (A) to point out one of the downfalls of working in science
- (B) to suggest that Pitts wishes he could take a vacation
- (C) to describe a typical day in the life of a scientist
- (D) to show that work is fun and relaxing for Pitts