

2H Moreland Trail
North Chili, NY 14514

December 13, 2018

Dear Landon,

It was great to hear back from you! I'm glad you liked your letter. You are my only pen pal. My favorite Disney movie is The Little Mermaid because I love to sing. My two favorite animals in the world are red pandas and narwhals. I feel like I wouldn't need to mix any animals together to make a new one because the red panda is like a fox-raccoon-cat and the narwhal is like a whale-unicorn. We have a zoo here that has red pandas so I like to go there. I think our zoo is about the same as yours, although we don't have kangaroos or aquariums. I have been to Disney World, partly because I went to college in Daytona Beach, Florida, which is very close to Orlando and Disney World.



This is a picture of my college. There's a telescope in that dome on top of the building.

My college was called Embry-Riddle Aeronautical University, which is a whole mouthful. It is called 'aeronautical' because many people go there to study how to be a pilot, how to fix airplanes, how to build rockets, and many other things having to do with the sky such as weather and outer space.



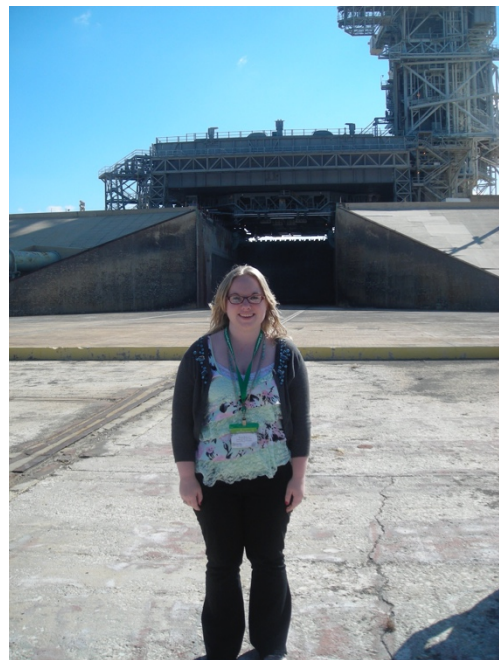
This is Embry-Riddle from above. Those planes on the left are the planes students use to learn to be pilots, and in the distance is the Atlantic Ocean.

I majored in space physics, which means that most of my classes were on that topic. Space physics is the study of the Earth's atmosphere and outer space. I also have minors, which means that I took a few classes in other areas such as math, astronomy, and communication. My favorite parts of college were learning how to use a telescope and creating a magazine about space. My favorite class was about science communication, which taught me how to write and design things that explain complicated topics in a simple and easy way.

College was different from middle school and high school because I didn't always have class all day. Sometimes I would have class in the morning or evening with a break in between. Sometimes I only had class on certain days of the week and not others. I also didn't have homework due every single day. Instead, I had larger assignments due once a week. When I wasn't in class or doing homework, I did some other fun things such as singing with a women's group, acting in plays, and helping to lead a club for people who like science. The club got to visit Kennedy Space Center and see rockets and spacecraft made by NASA. Because I was in Florida, I also enjoyed going to the beach and getting to go to Disney World.

As I mentioned last time, I didn't always know that I wanted to study space. When I was in high school I started to think about what I would like to study in college. I knew that I enjoyed writing and making things in school and thought that I might like to do that in college. My high school didn't have any astronomy, but I knew that I liked math and science and was very interested in space even though I didn't know much about it. I decided that in college I would like to study both astronomy and graphic design/communication, which includes writing and making logos, websites, and things like ads or posters. It was scary deciding to study something that I had never had the chance to learn about before.

I looked online for colleges that had both of the topics I wanted to study and would allow me to study both. Sometimes this is called doing a 'double major' or having more than one major area of study. I picked my college, Embry-Riddle, because their goal was to help people learn about everything to do with the sky and flying and space. I picked space physics so that I could learn about astronomy, and also studied communication and graphic design for people who want to explain science to others.



Me at Kennedy Space Center in front of the "flame trench" of a platform used to launch space craft. During a launch, fire from the rocket comes out of the hole behind me and covers the entire area.

When I started college, I knew that I wanted to study space and learn to communicate what I had learned with others. I didn't know right away what kind of job I might want. At first, I wanted to be an astronaut, but then I found out that most astronauts are scientists who have other jobs, become astronauts for a short period of time, and then go back to doing their old jobs. I decided that I wanted to become an astronomer or astrophysicist (scientist who studies space) and work for NASA.

I learned that many scientists who work at universities or government laboratories like NASA do scientific research, which can mean doing experiments, looking through telescopes, using computers to understand data, and designing and building instruments or robots. In order to do research, I found out that I would need to get a doctorate degree after I graduated from

college. I applied to graduate school, which is a fancy term for college after you already have one degree. Going to graduate school for things like science, engineering, technology, and math is very different from college because it's like having a job. Instead of paying to go to school, if you get in to the school, the school pays you and aside from taking classes you teach students and help professors (teachers) with their research projects.



This is the University of Kansas. It's on a tall hill even though everyone thinks Kansas is flat.

I went to the University of Kansas and studied computational physics and astronomy. This means that I learned how to use computers to solve complicated problems that would take too long to do by hand. I got what is called a master's degree, which is not as difficult as a doctorate degree because it takes less time. Then I applied to other schools for my doctorate degree, which is why I'm at RIT now.

I had no idea when I was in high school or even middle school that I would ever go to graduate school. I barely knew what I might want to study in college. You mentioned that you might like to make video games one day. Video games are made using computer programming, which is the exact same thing I do every day. The programs I write now aren't for games, but when I was first learning how to write computer programs I made simple games like Tic-Tac-Toe. I met many people in college who studied computer science, which is the name for studying computers, how they work, and how to program them.

If you think you might be interested in computer science, or any other science (zoology is the study of animals, for example), it's important to pay attention in your math, science, and computer classes (although writing is important too!). If you think you want to try programming to see if you like it, some websites where you can learn how to program (also called coding) for free are code.org and codecombat.com. You can even try making your own games!

Let me know if you have any questions about anything I've said. Do you think you might go to college one day? What do you think you would study if you did? Think about the most fun or most exciting thing you've learned in school. What was it? Is there something you wish you could learn about in school that you haven't? What would be your dream job when you grow up? Mine would probably still be being an astronaut. I can't wait to receive your next letter! By the time I write to you again I will have been to a large telescope in Arizona so I'll have pictures and will tell you all about it.

Sincerely,

Teresa