My NASA Data - STEM Career Connections

So, You Think You Can be a Data Scientist



Desiray Wilson, Data Scientist

What Does a Data Scientist Do?

Imagine being a detective for the digital age—that is essentially what a **data scientist** does! They use data as a powerful tool to explore and explain the world around us. Because data is everywhere, this field is incredibly versatile; you could use data science to study complex social systems and human behavior, or even look toward the stars to explore the mysteries of astrobiology. Whether you are curious about how societies function or how life might exist on other planets, data science provides the skills to investigate phenomena and find answers in almost any area you can imagine.

During this activity, you'll be introduced to Desiray Wilson, a data scientist who is interested in Earth science and in making Earth science data more accessible to all. However, before we meet Desiray, let's start by exploring your personal data science abilities.

Your Skills

What would you say if someone told you that maybe you are already preparing for a career as a data scientist?

Consider if you ever practice any of the following skills:

Skill	Examples
Determining the maximum value in a dataset.	• You check what your highest score has been in your favorite videogame or sport.
Noticing a pattern, in other words, things that happen again and again.	• You have noticed that your favorite sports team performs better when they play in their local field.
Focusing on a small part of a picture or graph.	• You zoom in photos you have taken to look at small details.
Grouping data into ranges, like low, medium, high.	• You track your temperature when you are sick to monitor if it falls within a normal range, low or high fever.
Observing a trend, like if something is getting faster or colder over time.	• You observe the progress you have made playing an instrument, speaking another language, or doing any favorite hobby.

If you have practiced any of the skills above, please know they can be very helpful for a career as a data scientist! If you have not practiced any of those skills, it is never too late to start. Let’s meet a data scientist, and we will see how your skills match up with her skills.

Meet Desiray Wilson



At about 12 years old, at a school band recital. Credit: Desiray Wilson

Desiray Wilson is a data scientist at NASA Langley Research Center, in Hampton, VA. She develops visualizations of Earth science data that help educators, students, and the general public to better understand what happens in our world!

Desiray grew up in the small town of Hill City in the state of South Dakota. When she was in school, she really enjoyed art, science, and music. She painted, played the flute, and loved doing lab

experiments. Sometimes math and chemistry classes were challenging for Desiray. However, she knows that those challenges helped her learn that it's okay if some things take extra time and practice to master. Desiray really enjoys learning new things and exploring the world around her. In college, she studied geology and programming so that she could learn more about the Earth. In her free time she still enjoys doing art, spending time in nature, and traveling.

Recently, Desiray earned a very prestigious award. She received the NASA Exceptional Public Achievement Medal for outstanding public achievement advancing open science, innovation, and next-generation engagement through her work!



NASA Exceptional Public Achievement Medal. Credit: Desiray Wilson

Desiray's Skills

Watch the following short video and pay close attention to how Desiray makes sense of temperature data.

Video: Discovering Data with NASA Scientists: Desiray Wilson

Discovering Data with NASA Scientists: Desiray Wilson | https://www.youtube.com/watch?v=gyKiLfC-PgI | Source: My NASA Data

Your Shared Skills

Next you will complete a table called Practices and Skills that shows the connection between skills and career practices. *A skill is the ability to do something. Practices are habits applying skills for a purpose and continuing to improve the skills.* It is possible for a skill to connect to more than one career practice. Now you know more about how Desiray makes sense of Earth science data for her work. So, it is time to complete the following table with examples of activities that you and Desiray do. Feel free to rewatch the video to help you complete the table. You may also add any other skills you identify, as well as examples of activities you would like to do to practice a new skill!

Practices and Skills

Career Practices	Skill that Supports Practice/s	Example of How Desiray Uses this Skill	Example of How You Use this Skill
Asking Questions and Defining Problems	Determining the maximum value in a dataset.		
Analyzing and Interpreting Data or Using Models	Noticing a pattern, in other words, things that happen again and again.		
Obtaining Information or Analyzing and Interpreting Data	Focusing on a small part of a picture or graph.		
Constructing Explanations	Grouping data into ranges, like low, medium, high.		
Analyzing and Interpreting Information	Observing a trend, like if something is getting faster or colder over time.		

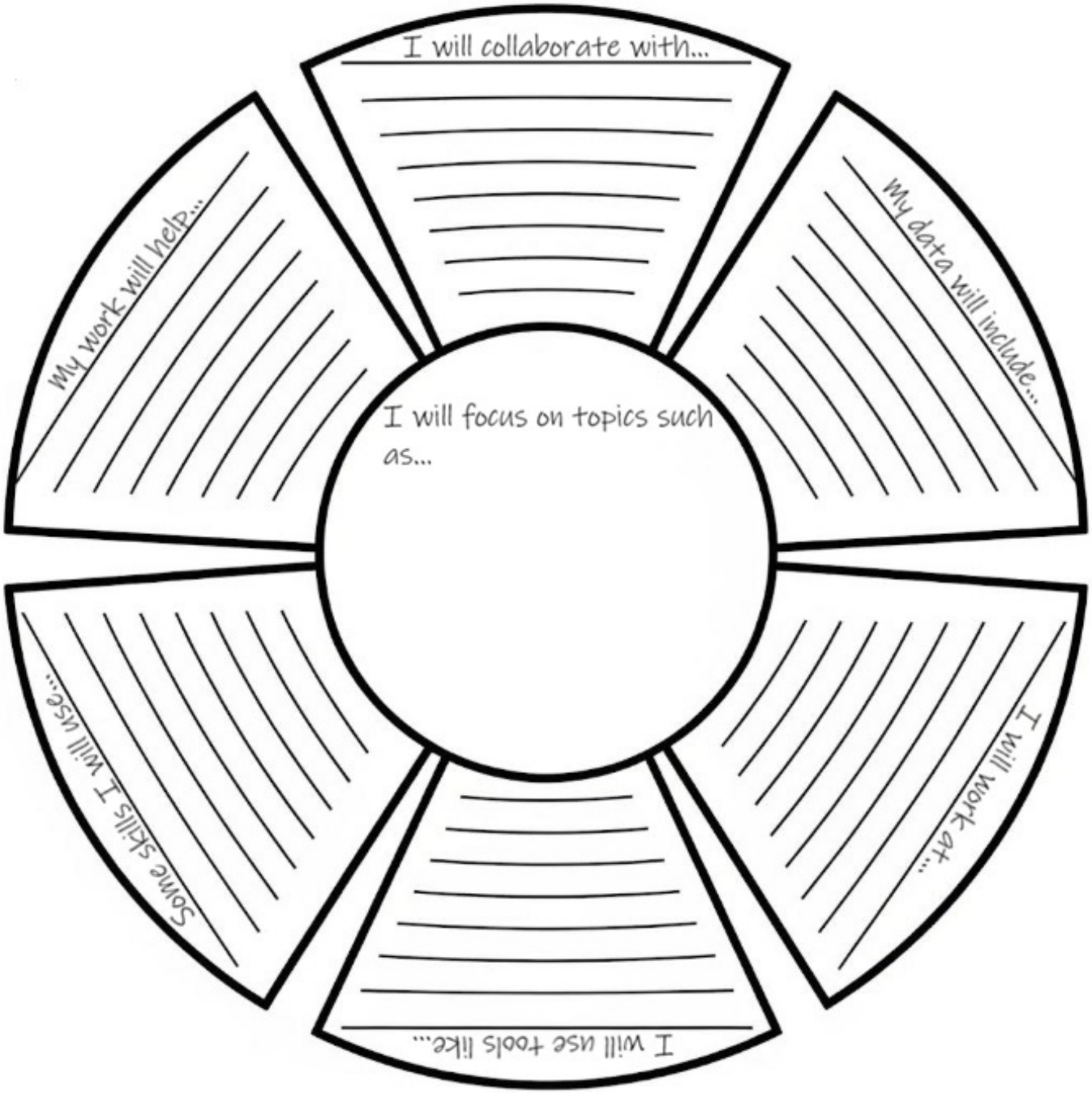
How might these Career Practices be important for this career?

Just for Fun

What is your favorite ice cream flavor? Desiray’s favorite ice cream flavor is mint chocolate chip! Whether or not you and Desiray have the same ice cream preferences, you and Desiray sure share many important skills!

Reflection

Many of your current activities are already preparing for a very bright future. If you are (or become!) curious about data and how to make sense of large datasets, you are practicing many skills that will help you succeed as a Data Scientist. Feel free to use the diagram below to envision your Data Scientist career. You can draw yourself as a data scientist in the center of the diagram!



Answer Key

Teachers who are interested in receiving the answer key, please complete the Teacher Key Request and Verification Form. We verify that requestors are teachers prior to sending access to the answer keys as we've had many students try to pass as teachers to gain access.