Career Profile

Principal Data Scientist

WHO ARE THEY? [1,2]

Biotech companies generate loads of data, and they are in desperate need of more **data scientists**. This is often because data scientists have been at the helm of major advances in medical biotechnology. They can use genome sequencing to predict the onset of disease, create health and wellness profiles based on data, and play a key role in research and development. Breakthroughs in biotechnology, such as the use of artificial intelligence (AI), are made possible by data scientists working with an increasing body of biological data. Analysis of this rapidly growing body of data has been massively influential, especially during the COVID-19 pandemic, in the speed of vaccine development, tracking symptoms and side effects, tracing vaccine side effects, and managing local outbreaks.

WHAT DO THEY DO? [3]

A **principal data scientist** is the highest-ranking data scientist in an organization. While actively participating in research and development, they also supervise other data scientists in their work. They can be responsible for training and providing guidelines to other data scientists and developing new methods and approaches to gathering and analyzing data. Within the biotechnology field, these professionals often facilitate major advances. They have introduced AI to the field, using individual genome sequencing, connecting app usage to individual health and wellness, programming robotic surgeons, working to cure diseases like cancer, creating a less toxic environment, and more!

JOB OUTLOOK [4]

The growing number of data and increased reliance on data in the biotechnology field paired with a lack of qualified data scientists means the demand for **principal data scientists** is expected to grow much faster than average. This occupation has a projected job growth of 33% over the next decade.

SALARY RANGE

$175,000

EDUCATION/TRAINING

Bachelor's degree in data science or computer-related field

5+ years of experience in related work

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HOW DO I BECOME A PRINCIPAL DATA SCIENTIST?

Principal data scientists are effective leaders, analytical, and complex problem solvers. Taking classes in math and statistics can help with working through problems, collecting data, and presenting results. They are very organized and attentive to details. Practicing time management, breaking tasks into chunks, making checklists, and establishing daily routines can help with these skills. Principal data scientists are also clear communicators. Writing concisely and using idea organizers can help refine communication skills.

1 *https://climbtheladder.com/principal-data-scientist/*

2 *https://www.amgenbiotechexperience.com/explosion-data-science-biotechnology*

3 *https://bit.ly/3dCv1cQ*

4 *https://www.bls.gov/ooh/math/mathematicians-and-statisticians.htm*

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