



BIOINFORMATICS SCIENTIST (AGRICULTURAL GENOMICS)

Hidden in DNA are the secrets to better crops, healthier plants, and stronger food systems—you could be the one to unlock them.

WHAT IT IS

Imagine using computers to unlock the secrets hidden in DNA. Bioinformatics scientists combine biology, statistics, and coding to analyze huge genetic datasets and discover how genes control traits like disease resistance and drought tolerance. Your programming skills help improve crops and agriculture with real-world impact. You'll team up with biologists to build software that turns DNA data into smart breeding plans—predicting which plants will thrive before seeds are planted, enhancing nutrition and improving pest resistance. You'll share discoveries, stay updated on new methods, and work in a fast-changing field. If you love puzzles, coding, and making a difference, bioinformatics could be your perfect fit!

A DAY IN THE LIFE

As a Bioinformatics Scientist, your work may take you from the office to the lab and beyond, blending biology with cutting-edge technology. Your day might include:

- Designing and coding algorithms to predict how plants grow and respond to environmental changes
- Collaborating with biologists and geneticists to analyze DNA and protein data
- Creating and improving software tools that process massive genetic information
- Staying current with advances in bioinformatics methods
- Participating in team discussions to interpret results and plan research
- Writing papers to share discoveries with the scientific community
- Presenting findings at conferences and networking with experts

DIG IN. DO GOOD.



READY FOR SUCCESS

Your success begins with curiosity about living things and a love for tech and problem-solving. Build strong skills in biology, computer science, and math. Explore coding and genetics whenever possible. Find mentors who challenge you and pursue internships to gain real-world experience.

EDUCATION REQUIRED

This career is rooted in studying living systems and the technology used to understand them.

Many bioinformatics scientists major in:

- **Biology**
- **Computer Science**
- **Biotechnology**
- **Genetics**
- **Mathematics**

Strong skills in programming, statistics, and data analysis are essential, along with courses in molecular biology, chemistry, and physics.

Entry-level roles usually require a bachelor's degree, while advanced research positions often call for a master's or Ph.D. Leadership roles may require a master's degree or MBA plus experience.

GETTING STARTED

Take biology, chemistry, physics, math, and computer science classes. Try a genetics or biotech project for science fairs or competitions. Join STEM clubs to get hands-on experience. Seek internships or volunteer opportunities in research labs.



GROW BY
26%
UNTIL 2033

JOB OUTLOOK

2025 data from the Bureau of Labor Statistics indicates that employment for computer and information research scientists, including bioinformatics scientists, is projected to grow by 26% until 2033.



\$94K
AS OF 2025

AVERAGE SALARY

The median annual salary for bioinformaticians in the U.S. was around \$94,000 as of a 2025 report, with higher earnings in the biotech and pharmaceutical sectors.