Data Scientists

SOC: 15-2051 • Career Profile Report

■ Key Facts

$112,590	245,900	+34.0%
Median Salary	Employment	Growth Rate

■ Requirements & Salary Range

Education: Bachelor's degree

■ Automation Risk Assessment

Low Risk - 12.0% probability of being automated in the next 10-20 years.

This job is relatively safe from automation due to its creative, social, or complex problem-solving requirements.

■■ Work-Life Balance

7.0/10 - Good work-life balance

■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

Realistic	7.4/10	**Investigative**	9.2/10
Artistic	4.6/10	**Social**	5.4/10
Enterprising	5.6/10	**Conventional**	6.8/10

■ Top Skills Required

Analytical skills, Computer skills, Communication skills, Logical-thinking skills, Math skills, Problem-solving skills

✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

■ Challenges

- Burnout Risk
- Rapid Technological Change

■ What They Do

Data Scientists typically perform the following tasks: • Analyze, manipulate, or process large sets of data using statistical software. • Apply feature selection algorithms to models predicting outcomes of interest, such as sales, attrition, and healthcare use. • Apply sampling techniques to determine groups to be surveyed or use complete enumeration methods. • Clean and manipulate raw data using statistical software. • Compare models using statistical performance metrics, such as loss functions or proportion of explained variance. • Create graphs, charts, or other visualizations to convey the results of data analysis using specialized software. • Deliver oral or written presentations of the results of mathematical modeling and data analysis to management or other end users. • Design surveys, opinion polls, or other instruments to collect data. • Identify business problems or management objectives that can be addressed through data analysis. • Identify relationships and trends or any factors that could affect the results of research. • Identify solutions to business problems, such as budgeting, staffing, and marketing decisions, using the results of data analysis. • Propose solutions in engineering, the sciences, and other fields using mathematical theories and techniques. • Read scientific articles, conference papers, or other sources of research to identify emerging analytic trends and technologies. • Recommend data-driven solutions to key stakeholders. • Test, validate, and reformulate models to ensure accurate prediction of outcomes of interest. • Write new functions or applications in programming languages to conduct analyses.
