



DEPARTMENT OF DIGITAL ECONOMY AND SYSTEM ANALYSIS

Data scientists are turning into detectives and artists, able to create increasingly accurate images of a person based on the digital trace left behind.

Andreas S. Weigend, writer, «Data for the People»

English speaking master's program BIG DATA MANAGEMENT AND COGNITIVE TECHNOLOGIES

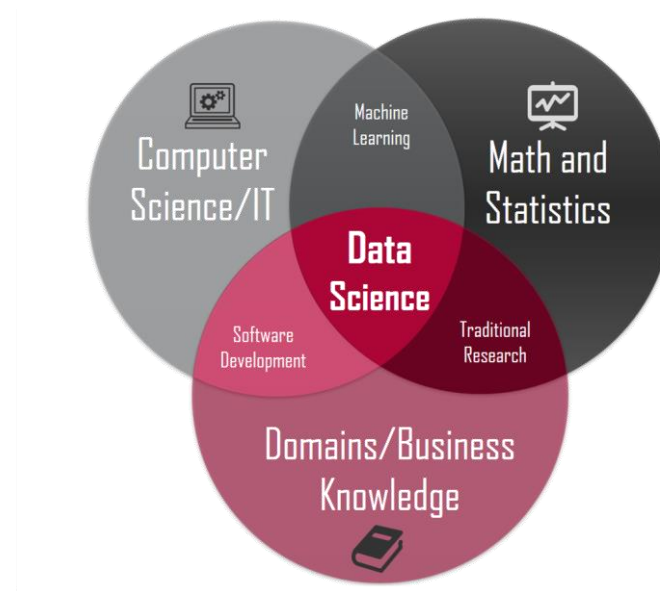
Disciplines of professional orientation:

- Big Data Analytics
- Design of Recommendation Systems
- English for Data Analytics
- Intelligent Systems
- Knowledge Management
- System Analysis of Complex Economic Systems under Uncertainty

The main learning outcomes:

- To create and research the models of complex systems and processes using the methods of system analysis, mathematical, computer and information modeling.
- To apply the methods of machine learning and data mining, mathematical tools of fuzzy logic and artificial intelligence to solve complex problems of system analysis.
- To develop intelligent systems in conditions of poorly structured data.
- To develop and apply models, methods and algorithms for the forecasting and decision-making in conditions of conflict, fuzzy information, uncertainty and risk.
- To develop data and knowledge management models in complex systems.
- To perform intelligent analysis and Big Data processing by means of computer modeling.

Who is a Data Scientist?



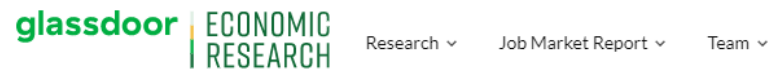
Data Science is an interdisciplinary field of scientific methods, processes and systems related to the mining of knowledge from data in various forms.

Data Science technologies make it possible to turn data into information and then information into knowledge.

Data Scientist is not a programmer. This person is a specialist with excellent cross-disciplinary knowledge of mathematics, artificial intelligence, information technology and business and super-analytical skills.

Why is a Data Scientist exactly?

According to the most authoritative website Glassdoor, which annually publishes the most relevant professions, experts in the field of data analysis for 5 years in a row are among the leaders of the ranking



Top 10 Best Jobs in America for 2021

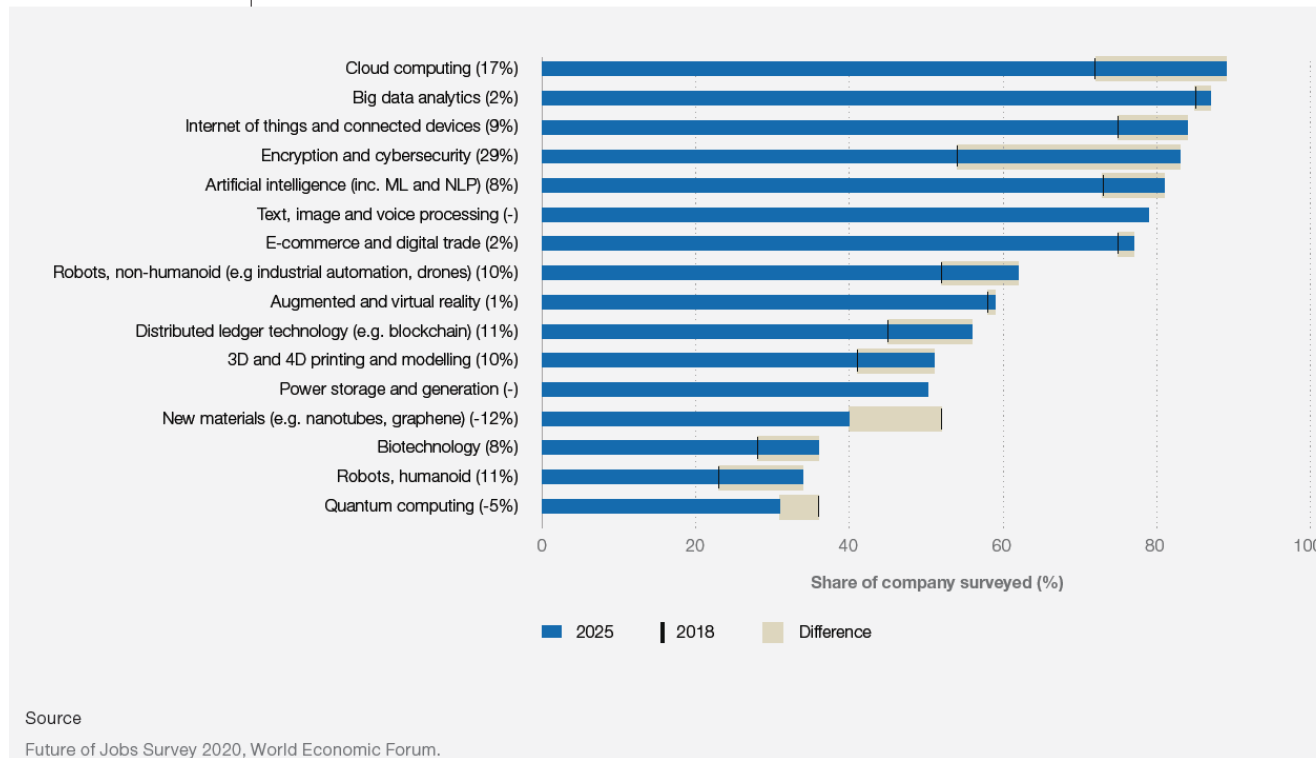
Rank	Job Title	Median Base Salary	Job Satisfaction	Job Openings
1	Java Developer	\$90,830	4.2	10,103
2	Data Scientist	\$113,736	4.1	5,971
3	Product Manager	\$121,107	3.9	14,515
4	Enterprise Architect	\$131,361	4.0	10,069
5	Devops Engineer	\$110,003	4.0	6,904
6	Information Security Engineer	\$110,000	4.0	5,621
7	Business Development Manager	\$82,182	4.1	8,827
8	Mobile Engineer	\$94,301	4.1	4,631
9	Software Engineer	\$110,245	3.8	40,564
10	Dentist	\$134,122	4.0	4,315

Source: Glassdoor Economic Research (Glassdoor.com/research)



According to the latest report of the World Economic Forum in 2025, 90% of companies in the world will need, first of all, the specialists in data analysis.

FIGURE 18 | Technologies likely to be adopted by 2025 (by share of companies surveyed)



Specialists in the Data analysis have the greatest increase demand of job roles among the future of jobs.

FIGURE 22

Top 20 job roles in increasing and decreasing demand across industries

➤ Increasing demand

1	Data Analysts and Scientists
2	AI and Machine Learning Specialists
3	Big Data Specialists
4	Digital Marketing and Strategy Specialists
5	Process Automation Specialists
6	Business Development Professionals
7	Digital Transformation Specialists
8	Information Security Analysts
9	Software and Applications Developers
10	Internet of Things Specialists
11	Project Managers
12	Business Services and Administration Managers
13	Database and Network Professionals
14	Robotics Engineers
15	Strategic Advisors
16	Management and Organization Analysts
17	FinTech Engineers
18	Mechanics and Machinery Repairers
19	Organizational Development Specialists
20	Risk Management Specialists

➤ Decreasing demand

1	Data Entry Clerks
2	Administrative and Executive Secretaries
3	Accounting, Bookkeeping and Payroll Clerks
4	Accountants and Auditors
5	Assembly and Factory Workers
6	Business Services and Administration Managers
7	Client Information and Customer Service Workers
8	General and Operations Managers
9	Mechanics and Machinery Repairers
10	Material-Recording and Stock-Keeping Clerks
11	Financial Analysts
12	Postal Service Clerks
13	Sales Rep., Wholesale and Manuf., Tech. and Sci. Products
14	Relationship Managers
15	Bank Tellers and Related Clerks
16	Door-To-Door Sales, News and Street Vendors
17	Electronics and Telecoms Installers and Repairers
18	Human Resources Specialists
19	Training and Development Specialists
20	Construction Laborers

Source

Future of Jobs Survey 2020, World Economic Forum.

What do we offer

- Strong career opportunities and good competitiveness on the job market in any activity sphere
- Improvement of your knowledge of English and mastering the special terms of Data Science
- Problem-oriented and interactive studying methods by using modern educational technologies
- Modern IT-laboratories, including the new special computer laboratory of Business Analytics
- Highly qualified scientific and teaching staff with practical experience in the field of Data Analytics
- Possibility of parallel studies in the joint Ukrainian-Slovak master's program «International Business Analytics».

What job you will be able to get

- Business Analyst
- Computer Data Bank Analyst
- Consolidated Information Analyst
- Data Administrator
- Professional in project and program management
- Researcher-consultant (computer systems)
- Researcher-consultant (information analytics)
- System Analyst

