Data Scientist

**Key Responsibilities**
- Cleans and organizes big data
- Solves business tasks using machine learning and data mining techniques

**Expertise**
- Distributed computing (user)
- Predictive modeling
- Math and statistics
- Machine learning
- Storytelling and visualization
- Capable of working with big data

**Languages**
- Coding: R, Python, Scala
- Database: SQL
- Computing: Hadoop/Spark

Database Administrator

**Key Responsibilities**
- Ensures that databases are available to all relevant users
- Data security
- System performance

**Expertise**
- Backup and recovery
- Database systems
- Distributed computing
- Data security
- Enterprise resource planning

**Languages**
- Database: SQL
- Other: Java, Python
- Distributed computing tools

Data Analyst

**Key Responsibilities**
- Collects and processes data
- Conducts basic statistical analyses
- Presents and explains results
- Supports more advanced/senior technical staff

**Languages**
- Statistical: R/SAS/Stata/Matlab
- Office tools

**Expertise**
- Spreadsheet manipulation and analysis
- Data visualization
- Basic math and statistics
Business Analyst

**Key Responsibilities**
- Serves as intermediary between business and technical teams
- Links data insights to actionable business decisions
- Uses storytelling techniques to communicate data science results to organization

**Expertise**
- Knowledge of Office suite to present data science findings to management
- Knowledge of visualization tools to illustrate business problems or solutions
- Storytelling and data-driven communication
- Basic data modeling

**Languages**
- Office tools
- Tableau/Splunk

Data and Analytics Manager

**Key Responsibilities**
- Manages data science team
- Prioritizes and manages data science projects
- Identifies and supports opportunities to use these skills throughout an organization

**Expertise**
- Leadership
- Project management
- Interpersonal communication
- Understanding of roles and responsibilities of teams

**Languages**
- Depends on level of technical or non-technical involvement

Data Engineer/Architect

**Key Responsibilities**
- Designs and implements data management systems to integrate, centralize, protect and maintain data sources
- Designs and maintains systems for data science staff to develop and put data science applications into production

**Expertise:**
- Data warehousing
- Database architecture
- ETL tools
- Business intelligence tools
- Kubernetes/cluster management tools

**Languages**
- Database: SQL/NoSQL
- Distributed Computing: Hive, Pig
- General purpose: Python, Java, Perl
- Statistical: Matlab/R/SPSS/SAS
DATA SCIENCE TITLES & FIELDS

a. Database Administrator
b. Data Engineer
c. Data Scientist
d. Data Analyst
e. Data & Analytics Manager
f. Business Analyst
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