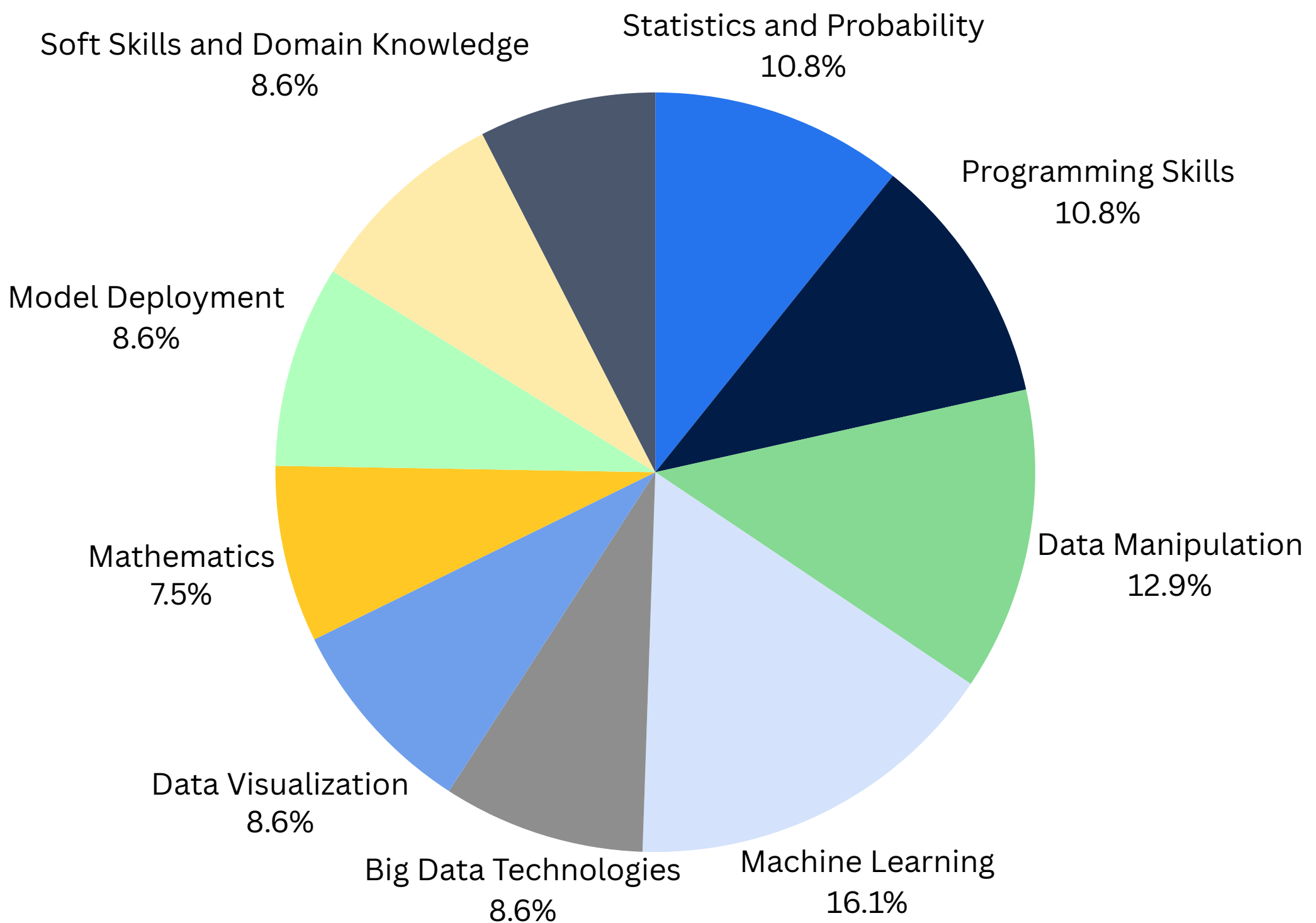


# Master Your Data Science Interview

Key Topics to Study for Success



# Statistics and Probability

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- Descriptive and inferential statistics
- Probability distributions and statistical tests
- Hypothesis testing

# Programming Skills

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- Proficiency in Python or R
- Libraries like NumPy, Pandas, Matplotlib, Seaborn (Python) or tidyverse (R)
- Writing efficient, clean, and reusable code

# Data Manipulation and Analysis

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- Data cleaning and preprocessing
- Data exploration and visualization
- Understanding of SQL for data querying



# Big Data Technologies

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- Familiarity with Hadoop, Spark, or Flink
- Understanding of data warehousing and ETL processes

# Machine Learning

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- Supervised learning (regression, classification)
- Unsupervised learning (clustering, dimensionality reduction)
- Basics of neural networks and deep learning
- Model evaluation and validation
- Understanding of bias-variance tradeoff, overfitting, and underfitting

# Data Visualization

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- Principles of effective visualization
- Experience with visualization tools (e.g., Tableau, PowerBI)



## Mathematics

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- Linear algebra
- Calculus (especially for deep learning)

## Model Deployment

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- Knowledge of APIs, Docker, and web frameworks (e.g., Flask, Django)
- Understanding of model deployment lifecycle, A/B testing

## Soft Skills and Domain Knowledge

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- Ability to interpret results and communicate findings effectively
- Understanding of the business domain or sector you're applying to
- Problem-solving and critical thinking skills