

# Data Science

**Chair, Department of Statistics and Actuarial Science**

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**Undergraduate major:** data science (BS)

**Graduate degree:** MS in data science

**Faculty:** <https://stat.uiowa.edu/people>

**Website:** <https://stat.uiowa.edu>

The BS in data science produces graduates with the sophisticated analytical and computational skills required to thrive in a quantitative world where new problems are encountered at an ever-increasing rate. The major emphasizes the statistical/probabilistic and algorithmic methods that underlie the preparation, analysis, and communication of complex data. With a focus on technical foundations, the data science program promotes skills useful for creating and implementing new or special-purpose analysis and visualization tools. It also promotes a fundamental understanding of how to best handle uncertainty when making data-driven decisions.

The MS in data science trains the next generation of data scientists who have the analytical and technical skills to explore, formulate, and solve complex data-driven problems in science, industry, business, and government. The program focuses on the theory, methodology, application, and ethics for working with and learning from data. With an emphasis on statistical thinking and foundations, the program rigorously prepares its graduates with the abilities to develop and implement new or special-purpose analysis and visualization tools. It promotes a fundamental understanding of how to quantify uncertainty in data-driven decision-making.

The BS and MS in data science are administered by the Department of Statistics and Actuarial Science.