

Data Science Undergraduate Programs

University of Wisconsin-Madison



WHAT IS DATA SCIENCE?

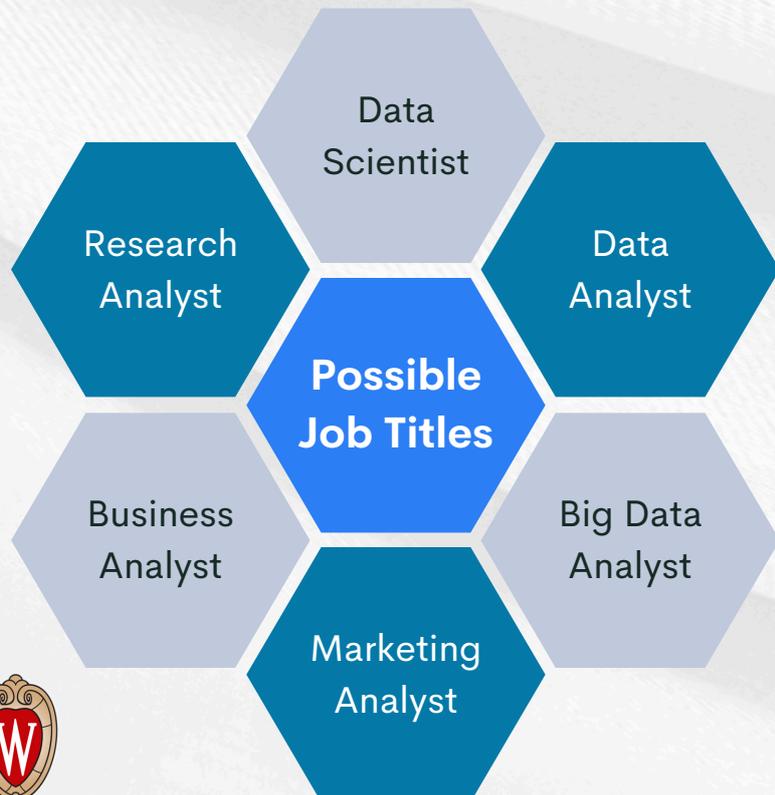
An interdisciplinary field that combines computational, mathematical, and statistical thinking to data-rich problems in a wide range of domains. It is the process of making meaning and extracting knowledge from large datasets in order to make predictions and optimize searches.

POSSIBLE DOMAIN AREAS

- Business & Economics
- Communications
- Engineering & Information Systems
- Health Sciences
- Sports
- Social Sciences

WHAT CAN I DO WITH DATA SCIENCE?

Gain data analysis, programming, and management skills to solve big data questions in a responsible and ethical manner.



Department of Statistics

SCHOOL OF COMPUTER, DATA & INFORMATION SCIENCES
UNIVERSITY OF WISCONSIN-MADISON

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DATA SCIENCE MAJOR

Good fit for students who enjoy advanced math and programming, desire to seek out data science opportunities in domain areas, and wish to develop data science tools.

MAJOR FOUNDATION COURSES

(7 courses at 27–29 credits)

- **Math Foundation:** Calculus 1 & 2
- **Data Science Foundation:**
 - 2 semesters of R programming
 - 2 semesters of Python programming
 - Data Ethics & Policy

MAJOR ELECTIVE COURSES

(6 courses at 18 credits)

One course minimum from each category

- Machine learning
- Advanced computing
- Statistical modeling
- Linear algebra

DATA SCIENCE CERTIFICATE

Good fit for students who like programming, wish to gain data analysis skills and wish to be a high-end user of data science tools.

FOUNDATION COURSES

(3 courses at 10–12 credits)

- 2 programming courses
(Choice of R and/or Python)
- 1 Data Ethics & Policy course

ELECTIVE COURSES

(2 courses at 6 credits)

- 1 Elective in Fundamental Category
- 1 Elective in Fundamental or Domain Category

Contact Information

Visit our department website at <https://stat.wisc.edu/> or email us below.

Full curriculum is available at <https://go.wisc.edu/fwpi4b>.

Data Science Major

dsmajor@stat.wisc.edu

Data Science Certificate

dscert@stat.wisc.edu