DATA SCIENCE Curriculum

What makes UMs M.S. in Data Science unique are the interdisciplinary connections available to students from all undergraduate backgrounds.

While selecting a track is not required, students may choose from the following options:

Technical Data Science
For students with a quantitative background who wish to expand their educational experiences and career preparation in statistics, machine learning, programming, data engineering, and database systems.

Data Visualization
For students who wish to study the graphical representation of the trends and patterns found in data through charts, graphs, maps, and diagrams.

Marine & Atmospheric Science
For students who wish to apply data science training to the field of marine and atmospheric science.

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Industry Outlook
According to the United States Bureau of Labor Statistics, employment for data and information research scientists is expected to rise 19 percent by the year 2026, which is much faster than the average for all other professions.

Median Incomes

<table>
<thead>
<tr>
<th>Role</th>
<th>Median Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Intelligence (BI)</td>
<td>$89,333</td>
</tr>
<tr>
<td>Data Architect</td>
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</tr>
<tr>
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PARTICIPATING SCHOOLS AND COLLEGES
- College of Arts & Sciences
- College of Engineering
- School of Architecture
- School of Communication
- School of Education & Human Development
- Rosenstiel School of Marine & Atmospheric Science

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Developer: $89,333
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UNIVERSITY OF MIAMI
COLLEGE OF ARTS & SCIENCES

Office of Interdisciplinary and Professional Studies
1300 Campo Sano Avenue, Suite 215
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msdsadmissions@miami.edu
305-284-8783
www.msd.datascience.miami.edu

UNIVERSITY OF MIAMI
BIG DATA, BIG FUTURE

THE M.S. IN DATA SCIENCE allows students to apply data science techniques to a variety of interests. The program has statistics and machine learning at its core, allowing students to learn practical techniques in data science, explore solutions to domain-specific problems, and experience real-world data science applications through internships.

“The sexiest job of the 21st century.”
— HARVARD BUSINESS REVIEW
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Data Science in Business Intelligence (BI)

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Founded on computer science, mathematics, statistics, and data visualization techniques, the M.S. in Data Science is unique in that it adds deep content knowledge to specialized applications, such as communications, architecture, and marine sciences. The result is a truly interdisciplinary approach ensuring that graduates are able to take up the role of data scientist in any organization.

Data Science for all Disciplines

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Internships

The M.S. in Data Science provides exclusive, experiential learning opportunities and industrial connections for our students, both in program and post-graduation, with the cooperation of the Institute for Data Science and Computing (IDSC). In addition, UM’s Toprank Career Center provides career education and advising for all students.

The Institute for Data Science and Computing supports nationally and internationally recognized research programs, focusing on those of an interdisciplinary nature, and actively engages in research to solve the complex technological problems of modern society. IDSC provides a framework for promoting collaborative and multidisciplinary activities across the University and beyond, establishing excellence in the fundamental, as well as applied, aspects of computational science.

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Data Science students have the opportunity to complete internships with the following organizations:

- Royal Caribbean Cruise Lines
- Baptist Health South Florida
- Learning Tree
- GameChangeThru
- Thomidy
- GlassHouse Systems
- TUL Ventures
- Eikon Digital
- Palm Beach Tech

INSTITUTE FOR DATA SCIENCE AND COMPUTING

Data Science fast facts

- 87
  - Different countries
- 11.5 Million
  - Data science jobs will be created in the next 5 years
- 28%
  - Profession for a data scientist is 28%
- 88%
  - Averagely a Master’s degree
- 113K
  - AVERAGE SALARY FOR A DATA SCIENTIST IS $113K PER YEAR
DATASET SCIENCE
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- Infrastructure Architect: $126,353
- Enterprise Architect: $161,272

- Data Scientist: $139,840
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CREDITS
30

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DATA SCIENCE
Master of Science in

- 30 CREDITS
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