DATA SCIENCE
Curriculum

What makes UM’s 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 tackle problems in the atmosphere, including ocean modeling, climate modeling, and remote sensing.

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>Business Intelligence (BI)</th>
<th>Data Scientist: $139,040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developer: $89,333</td>
<td>Data Analyst: $63,876</td>
</tr>
<tr>
<td>Data Architect: $101,520</td>
<td>Data Engineer: $111,307</td>
</tr>
<tr>
<td>Applications Architect: $114,520</td>
<td>Machine Learning Engineer: $116,826</td>
</tr>
<tr>
<td>Infrastructure Architect: $124,353</td>
<td>Statistician: $93,589</td>
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<tr>
<td>Enterprise Architect: $161,272</td>
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PARTICIPATING SCHOOLS

- 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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Brooke and S. Howard Edgerton, Professor
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Fax: 305-284-8783
bsedgerton@miami.edu
www.msdatascience.miami.edu

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, explicate solutions to domain specific problems, and experience real-world data science applications through internships.

“Business intelligence is the future. It’s the sexy job of the 21st century.”
— HERALD BUSINESS REVIEW
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The sexiest job of the 21st century.
— Harvard Business Review

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“Big Data, Big Future”

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NO GRE REQUIRED

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“Big Data, Big Future”
Data Science for all Disciplines

Data scientists are in high demand. Large companies need talented individuals who can not only perform various data analysis techniques, but are also able to interpret the results by drawing on their domain knowledge. The University of Miami’s M.S. in Data Science is designed to teach students how to unlock the hidden values in big data in any setting in order to garner strategic insights and achieve results.

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.

Internships

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

Core Faculty

Collaborative and multidisciplinary activities across the University and beyond, establishing excellence in the fundamental, as well as applied, aspects of computational science.

IDSC is integral in UM’s data science activities, including the annual Smart Cities and Data Intersections conferences, as well as being home to the Pegasus and Triton Supercomputers.

Institute for Data Science and Computing

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 is integral in UM’s data science activities, including the annual Smart Cities and Data Intersections conferences, as well as being home to the Pegasus and Triton Supercomputers.

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

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- Baptist Health South Florida
- Learning Tool
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