Data Analytics Engineering (M.S.)

Master of Science

Program Overview

The MS in Data Analytics Engineering is designed to provide students with an understanding of the technologies and methodologies necessary for data-driven decision-making. Students study topics such as data mining, information technology, statistical models, predictive analytics, optimization, risk analysis, and data visualization. It is aimed at students who wish to become data scientists and analysts in finance, marketing, operations, business intelligence, and other information intensive groups generating and consuming large amounts of data. The focus of the degree is on the technologies and methodologies of data analytics for solving Big Data problems.

Program Requirements

The Master of Science in Data Analytics Engineering requires completion of a minimum of 30 credits of graduate course work with a core component of 12 credits, an elective component of 15 credits, and a capstone course (3 credits) at the end of the program.
Core course options include:

- Big Data and Advanced Analytics
- Principles of Data Management and Mining
- Theory and Applications of Data Mining
- Analytics and Decision Analysis
- Applied Statistics and Visualization for Analytics
- Applied Statistics

Students need to select an area of concentration:

- Applied Analytics
- Bioengineering
- Business Analytics
- Data Mining
- Digital Forensics
- Financial Engineering
- Health Data Analytics
- Predictive Analytics
- Statistical Analytics

Students can also create an individualized plan of study (subject to approval).

Distance Education courses may be available for select programs. Graduate Certificate degree programs may also be offered. Please visit our website for details.

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Admission Requirements

In addition to meeting general university admissions requirements, Applicants must have completed a baccalaureate degree from an accredited program with a reputation for high academic standards and an earned GPA of 3.00 or better in their 60 highest-level credits. While no specific undergraduate degree is required, a background in engineering, business, computer science, statistics, mathematics, or information technology, is desirable, or alternatively strong work experience with data or analytics may be used.

Required application materials include:
- Online application and non-refundable fee
- Transcripts showing all post-secondary study
- Professional and Educational Goals Statement
- Two letters of recommendation from professors or senior officials at place of employment
- Self-Evaluation
- Resume

Additional application materials, including English proficiency examination scores (e.g., TOEFL, IELTS), are required if the applicant holds a degree from an international institution and/or requires an F-1 or J-1 visa. Visit http://admissions.gmu.edu/grad/ for details.

Special admission programs are available for Volgenau School students and alumni.

Visit our website for details: http://volgenau.gmu.edu/academics/graduate-programs
Apply online: http://admissions.gmu.edu/grad/applynow/