Northeastern University Engineering

Master of Science in Data Analytics Engineering

Through Northeastern’s interdisciplinary Master of Science in Data Analytics Engineering (MS-DAE) program, you will build on your existing engineering foundation to gain employment at businesses of all kinds to improve their products, processes, systems, and enterprises, all through the power of optimization, statistics, machine learning, and visualization.

Innovative Curriculum

Irrespective of your engineering major, you will gain rigorous analytical skills and research experience through technically advanced core courses in operations research, statistics, data mining, database management, and visualization. You can further specialize your degree with flexible electives from diverse disciplines across colleges at Northeastern in areas such as:

- Big Data
- Smart Manufacturing
- Healthcare Analytics
- Network Science
- Machine Learning
- Advanced Optimization
- Business Analytics
- Internet of Things

Upon graduation with your MS-DAE degree, you’ll be prepared to take on a data analysis position in any industry, or to enter a doctoral program in areas including engineering, healthcare, business, finance, security, or sustainability.

Exciting Research Experience

You’ll gain valuable research experience desired by employers by designing and developing analytics projects in both individual and group settings. Some recent research projects have included

- Investigating innovative models for tumor response forecasting to personalize pre-surgical treatment for breast cancer patients
- Developing adaptive maintenance methods, standards, and metrics for monitoring and performance assurance (Mpass) of smart manufacturing equipment
- Building a robust continuous objective multimodal pain assessment sensing system (COMPASS) using physiological signals and facial expressions.

Real-World Co-ops

Cooperative education at Northeastern is another vital hands-on learning opportunity for MS-DAE students. While on co-op, you’ll spend a 4-, 6-, or 8-month placement working in industries ranging from finance and technology to energy and healthcare here in Boston and across the country. Recent MS-DAE co-op partners include Fidelity Investments, Fraunhofer USA, Wayfair, Roku, IBM, and State Street Global Services.

For more information: coe.neu.edu/degrees/ms-dae