EXTRACTION_STARTED

GRADUATE SCHOOL
DATA SCIENCE AT MICHIGAN TECH

EXPLORING THIS FASCINATING, MULTIDISCIPLINARY FIELD

DATA SCIENCE (MS, GRADUATE CERTIFICATE)

DYNAMIC, HIGH-IMPACT FIELD
The field of data science has emerged in response to the increased data abundance in industry, science, and engineering—a result of richer content and high-speed communication networks. In 2000, the amount of data stored globally hovered around 800,000 petabytes; in contrast, projections for 2020 place the data lode at approximately 35 zettabytes. Accordingly, the Bureau of Labor Statistics forecasts a 19 percent growth in employment for computer and information research scientists by 2020.

WHO ARE DATA SCIENTISTS?
Because our data-collecting abilities have far outpaced our data management and interpretative abilities, the world is in dire need of scientists who can expertly analyze and interpret massive data sets. The current lack of these trained professionals limits the amount of data that can be effectively mined to less than 5 percent of available data.

Data scientists occupy a unique niche in a variety of industries, from retail to finance to healthcare. They fill diverse roles, from data prognosticating to communicating complex, technical information to broad audiences. This skill set is in very high demand.

MULTIDISCIPLINARY EDUCATION
This non-departmental graduate program brings together the expertise of computer science, business, engineering, and mathematical sciences. Beginning with a relevant business-related problem, graduate students will pursue logical and innovative solutions that, ideally, lead to valuable insights beyond solving superficial issues. Programmatic design and responsiveness allow individual flexibility in selection of graduate electives. The world of Big Data creates a wealth of opportunities that are only limited by one’s imagination. Additionally, ethical considerations and interpersonal communications are stressed throughout the curriculum.

RESEARCH OPPORTUNITIES
Solve real-world problems and produce actionable solutions that add value for an organization. Our degree will provide you with a broad-based education in data mining, predictive analytics, cloud computing, data-science fundamentals, communication, and business acumen. Additionally, you will gain a competitive edge through domain-specific specialization in disciplines of science and engineering. You will have the freedom to explore and develop your own interests in one or more domains.

Big producers of data include:
- Twitter and Facebook, which both generate more than seven terabytes of data each day;
- e-health networks;
- telemetry devices and sensors;
- environmental agencies;
- commercial entities; and
- information security agencies.

FACULTY SPOTLIGHT
“Data Science is at the intersection of several disciplines, with foundations in computer science, mathematics, statistics, and business and strategic management, with a focus on specific domain areas. Data scientists are focused on the data-driven challenges of today and tomorrow, advancing and transforming fields as diverse as social science, chemistry, engineering, and medicine.”

Laura Brown
Assistant Professor of Computer Science

www.mtu.edu/data-science • www.mtu.edu/gradschool

EXTRACTION_END
ADMISSION REQUIREMENTS
Application deadline: Apply by January 1 for full funding consideration for the fall semester. Applications are reviewed on an individual basis using a holistic approach.

All Students
• Graduate School application
• Statement of purpose
• Official transcripts
• Bachelor’s degree in Computer Science, Computer Science Systems, Management Information Systems, Computer or Software Engineering, Mathematical Sciences, or other related field
• GRE (Michigan Tech students exempt)
• Three letters of recommendation
• Résumé/curriculum vitae
• Admitted students typically have an undergraduate GPA of 3.4/4.0 or better
• Prerequisites: Foundational computer programming skills, knowledge of statistical analysis including interpretation

International Students
• TOEFL: Recommended score of 100 iBT

FINANCING AND AWARDS
Here are a few financial aid opportunities you can explore as you look for ways to pay for your degree.

Graduate Teaching Assistantships (GTAs) are awarded competitively through the School of Business and Economics based on merit. Early accepted applications receive the strongest consideration.

Many graduate students are eligible for a new set of federal loans, up to $20,500 per academic year, as independent students.

Contact Michigan Tech’s Financial Aid Office at 906-487-2622 or finaid@mtu.edu for more information on financial aid opportunities.

ABOUT MICHIGAN TECH
Michigan Technological University, founded in 1885, has gained world-wide recognition for innovative education and scholarship. Michigan Tech is a leading public research university, exploring the boundaries of knowledge, developing new technologies, and preparing students to create the future for a prosperous and sustainable world. Michigan Tech offers more than seventy graduate degree programs in engineering, forestry and environmental sciences, computing, business and economics, natural and physical sciences, humanities, technology, and social sciences.

ABOUT HOUGHTON
Houghton lies in the heart of Upper Michigan’s scenic Keweenaw Peninsula. The campus overlooks the Keweenaw Waterway and is just a few miles from Lake Superior. The area’s waters and forests, including our 600-acre recreational forest adjoining campus, offer students unparalleled opportunity for outdoor recreation and relaxation. The University’s 7,000 students come from all fifty states and more than sixty nations, making the area a vibrant, multicultural community.

APPLYING IS EASY—AND FREE!
www.mtu.edu/gradschool/admissions/apply

Data Science at Michigan Tech
Michigan Technological University
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1400 Townsend Drive • Houghton, Michigan 49931-1295
Phone 906-487-3440 • Fax 906-487-1863 • Email mwbuche@mtu.edu
www.mtu.edu/data-science

Graduate School
Email gradadms@mtu.edu or call 906-487-2327
www.mtu.edu/gradschool

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