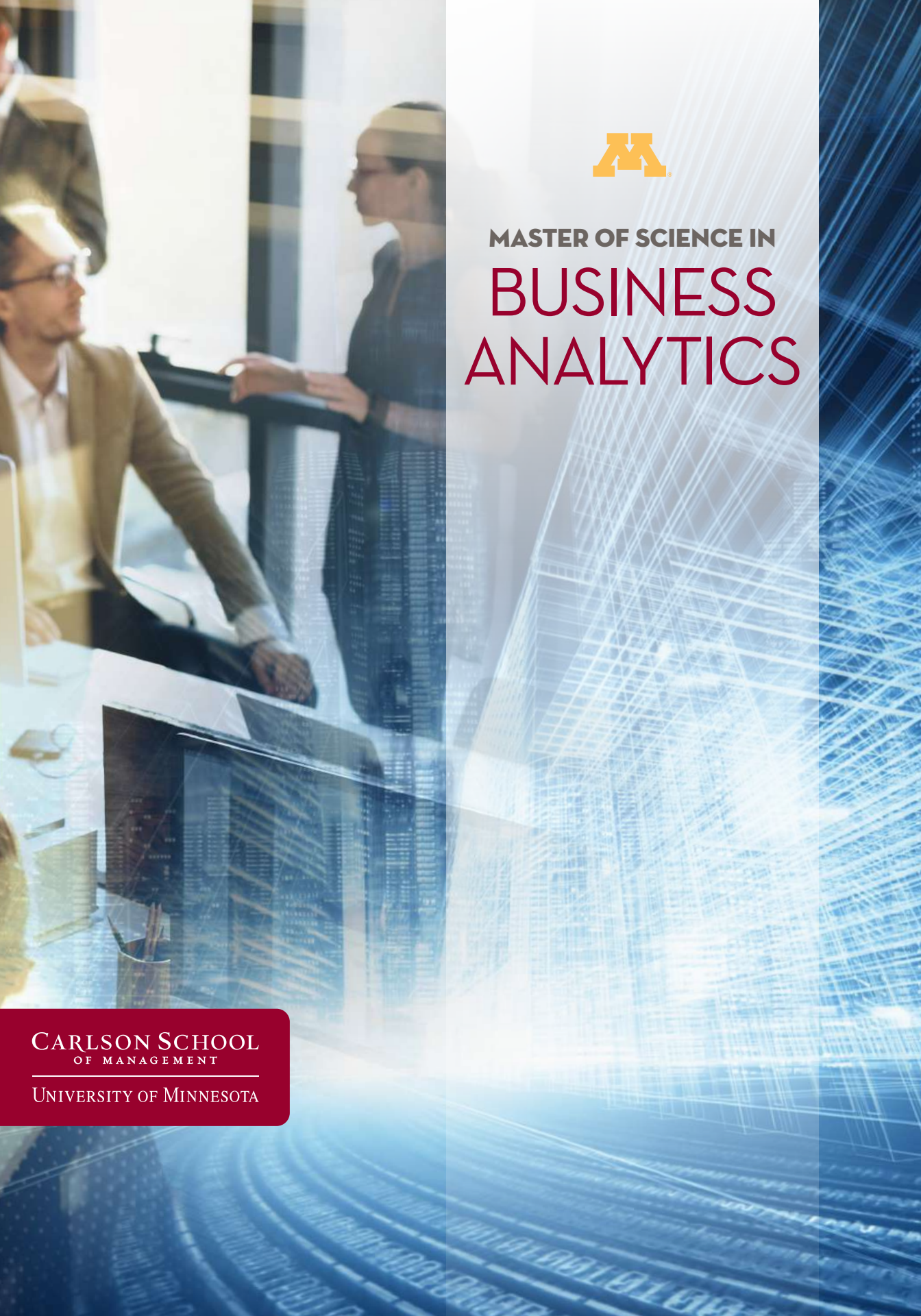


MASTER OF SCIENCE IN

BUSINESS ANALYTICS

CARLSON SCHOOL
OF MANAGEMENT

UNIVERSITY OF MINNESOTA

FIND YOUR FUTURE IN A DATA-DRIVEN WORLD

Harnessing big data is a 21st century business imperative. The Carlson School Master of Science in Business Analytics (MSBA) program teaches students how to extract insights from data in order to create real value for today's businesses. Students graduate with both the data science skills and the business acumen to be leaders in an increasingly data-driven world.

ANALYTICS EVERYWHERE

Where can an education in analytics take your career?

Just about anywhere you want to go.

More than ever, companies across industries are turning to analytics to solve real problems for businesses, communities, and society.

IN HEALTHCARE
Improve efficiency, safety and compliance, and important aspects of patient care, such as deployment of medical personnel. Carlson School students and alumni have done all of the above and more in healthcare.

IN MARKETING
Measurement-driven digital marketing is the modern standard. Sophisticated data analysis enables companies to optimize strategies for competitive advantage.

IN MANUFACTURING
Streamline supply chains, revamp intricate systems, and enhance productivity for companies across sectors. Diverse data sets and complex challenges call for creative thinking and analytical prowess.

IN TECHNOLOGY
From clicks and downloads to mobile computing and the "internet of things," data and analytics fuel tech innovation. Carlson School grads find opportunities in groundbreaking start-ups and big-name tech giants.

MASTER ANALYTICS AND MOVE FORWARD FASTER

2.5 QUINTILLION BYTES PER DAY

Amount of data created each day according to IBM.

Demand has never been greater for professionals who can mine data for business value.

The Carlson School curriculum offers a unique combination of business knowledge, technical skills, and data analysis expertise. Experiential learning provides opportunities to apply all of these to answer real business questions. You'll graduate from a top-ranked university with an advanced degree, ready to put it to work for your future.

> The unmanageable volume and complexity of the big data that the world is now swimming in have increased the potential of machine learning—and the need for it." —*McKinsey & Company*

BUSINESS CONTEXT

The entire program focuses on the use of analytics in business, equipping graduates to assume data analytics leadership roles in all kinds of industries.

MANAGEMENT FUNDAMENTALS

Core concepts of management, marketing, finance, and team leadership provide a solid foundation for building a career in business analytics.

+

TECHNICAL CAPABILITIES

Courses in data harvesting and engineering, programming, and application development prepare students to configure the technologies that power analytics.

+

MULTI-METHOD DATA ANALYSIS

Statistics, machine learning, predictive analytics, modeling, visualization, and other advanced methods teach students to extract value from data.

+

EXPERIENTIAL LEARNING

The curriculum is infused with opportunities to tackle complex business problems using real data sets from nationally known companies.

Our Management Information Systems Specialty is consistently ranked in the **TOP 5** by *U.S. News & World Report*

STUDY WITH RECOGNIZED EXPERTS

Widely recognized as the birthplace of management information systems, the Carlson School consistently ranks among the top programs for the discipline. Our faculty bring field-leading expertise and research to the classroom.

MEET A FEW PROFESSORS

Ravi Bapna
CURTIS L. CARLSON CHAIR IN BUSINESS ANALYTICS AND INFORMATION SYSTEMS, INFORMATION & DECISION SCIENCES
Expert in these areas: peer influence in online social networks and big data analytics

Akhmed Umyarov
ASSISTANT PROFESSOR, INFORMATION AND DECISION SCIENCES
Expert in these areas: data mining, experimental design, statistics, social media, big data

Svjetlana Madzar
SENIOR LECTURER, WORK & ORGANIZATIONS
Expert in these areas: international team collaboration and management

Maria Ana Vitorino
ASSISTANT PROFESSOR, MARKETING
Expert in these areas: empirical applications of statistics and economic models to marketing

Information & Decision Sciences Associate Professor De Liu teaches students how to combine large-scale data harvesting and deep analysis to derive insights about markets and user behaviors. He uses the same techniques plus econometric methods to research digital advertising, peer-to-peer markets, internet auction mechanisms, and gamification in education and healthcare.

Professor Liu's courses are among the most popular—and challenging—in the MSBA program. His dedication to student learning is evidenced by the fact that he was voted "Best Teacher" by MSBA students for the last two years.

REAL BUSINESSES. REAL DATA. REAL EXPERIENCE.

Hands-on learning is a hallmark of the Carlson School. Classes incorporate case-based study with real data sets that are complex, interesting, often messy, and challenging. Students gain experience using analytics to solve problems real businesses face.

CAPSTONE PROJECT

Part-time students complete a capstone project that includes application of analytical methodologies, techniques, and tools learned throughout the program. Through the capstone project, students gain experience with the entire data analytics cycle—from business problem assessment to data engineering, and from data analysis to presentation of results and recommendations.

"The experiential learning aspect of the MSBA program gives students a very good idea of what a real data analytics project looks like, including how to apply different data analytics techniques in a real business setting, how to cooperate with colleagues on data analytics projects, and how to convey key data analytics insights to stakeholders. These are all really important parts of jobs in analytics."

— XIN (EMILY) RONG, '15 MSBA
Data Scientist at Amazon

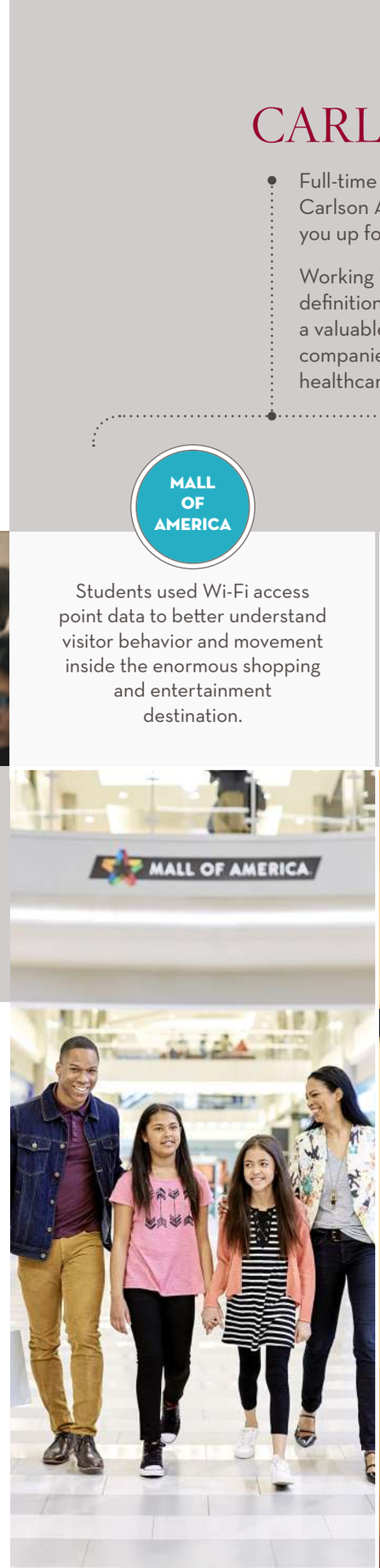
CARLSON ANALYTICS LAB

Full-time students work on real data projects with a client company in the Carlson Analytics Lab. This highly relevant semester-long experience sets you up for success post-graduation—and sets you apart on the job market.

Working in small teams, students lead every aspect of the project from definition to delivery, with guidance from faculty and professional staff, for a valuable resume-worthy experience. Past clients include *Fortune* 500 companies from a variety of industries. National retailers, manufacturers, healthcare players, agribusinesses, and others have partnered with the lab.

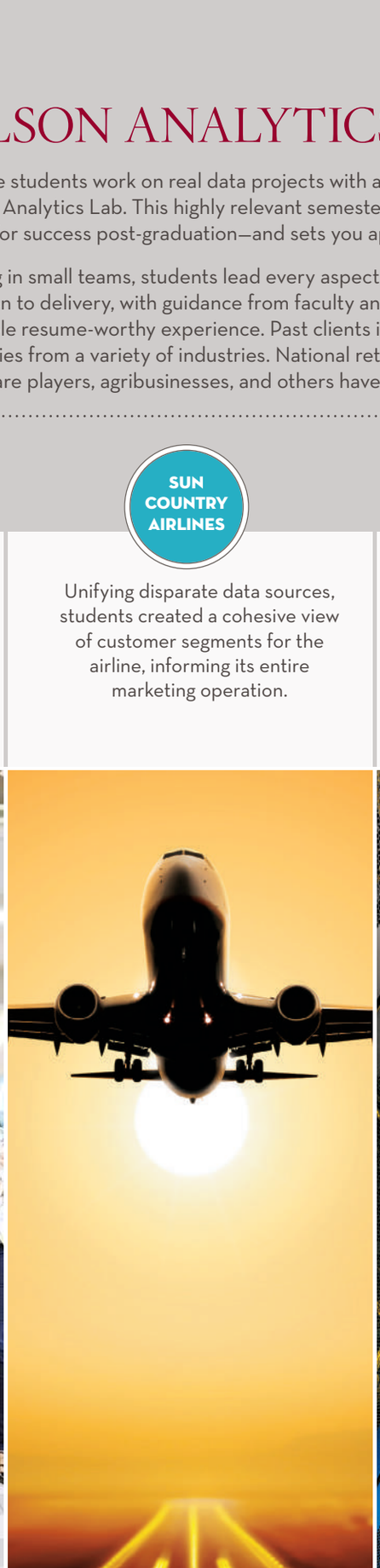
MALL OF AMERICA

Students used Wi-Fi access point data to better understand visitor behavior and movement inside the enormous shopping and entertainment destination.



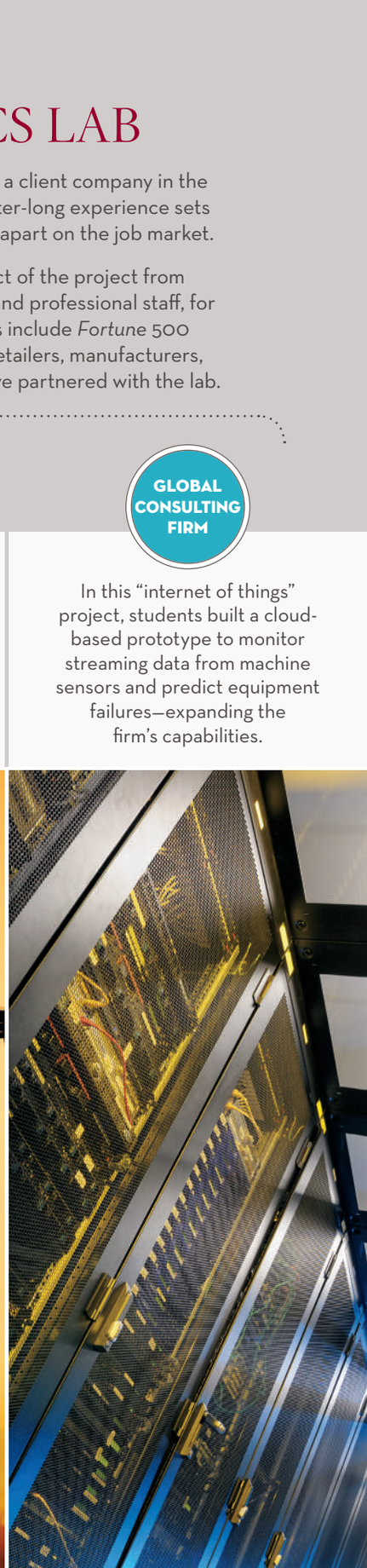
SUN COUNTRY AIRLINES

Unifying disparate data sources, students created a cohesive view of customer segments for the airline, informing its entire marketing operation.



GLOBAL CONSULTING FIRM

In this "internet of things" project, students built a cloud-based prototype to monitor streaming data from machine sensors and predict equipment failures—expanding the firm's capabilities.



PREPARE FOR CAREERS AT STANDOUT COMPANIES

100%
PLACEMENT
within 90 days of graduation

CLASS OF 2015 & CLASS OF 2016

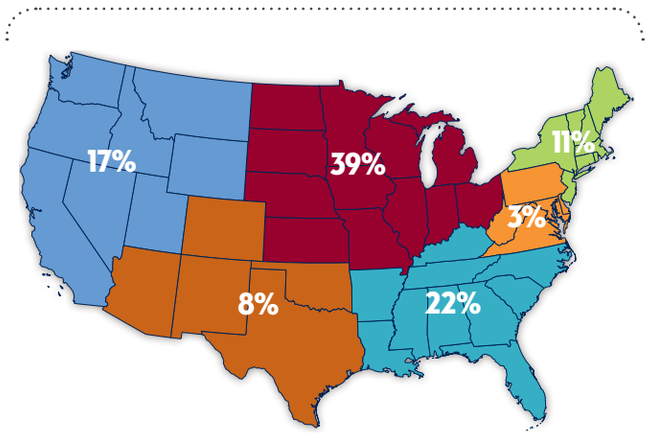
The Carlson School's extensive network spans local, national, and global business communities, connecting students to industry leaders and future colleagues. Graduates of the MSBA program land exciting jobs with top companies across the country.

$87,750
AVERAGE
SALARY

FOR 2016 GRADUATES

$7,308
AVERAGE
SIGNING BONUS

EMPLOYMENT BY REGION



PROGRAM ADVISORY BOARDS REPRESENT A SPECTRUM OF COMPANIES

Analytics professionals from leading organizations make up the advisory board for the MSBA program. Working in collaboration with faculty, advisory board members bring industry perspective to ongoing program strategy and development. MSBA students have opportunities to meet and engage with board members at events throughout the year.

- AMAZON
- AMERIPRISE
- CARGILL
- CARMICHAEL LYNCH
- EXPERIAN
- GENERAL MILLS
- GOOGLE
- MCKINSEY & COMPANY
- MCKINSEY DIGITAL
- MEDTRONIC
- MALL OF AMERICA
- OPTUM
- PWC
- REGIS
- SEARS
- SLALOM CONSULTING
- TARGET
- THOMSON REUTERS
- WALMART

"My favorite part of the MSBA program was how quickly it enabled me to augment my skills and change my career trajectory. Over the course of a single year, I went from running a web design agency in Minneapolis to landing a job at McKinsey and moving to New York. I honestly don't think I could have picked a better way to spend a year that would have had more impact on my future.

"One of the reasons why I chose the MSBA program over other business education is that the program helps you build a very practical and hands-on set of skills that are in high demand. Not only do I now know how these big data technologies work, but I was able to put them into practice the first day of my new job."

— NICK ROSENER, '16 MSBA
Digital Analyst at McKinsey & Company

JOIN A COMMUNITY OF LEADERS

Students at the University of Minnesota's Carlson School are part of a vibrant campus community that extends to a worldwide alumni network of 50,000+ strong in more than 100 countries.

John Tong
SENIOR LEADERSHIP PROGRAM ASSOCIATE
SEARS

Punit Lohani
BUSINESS INSIGHT ANALYST
EXPEDIA

Xiaochen Li
MARKETING DATA ANALYST
AIRBNB

Richard Archer
DATA SCIENTIST
COGNIZANT TECHNOLOGY SOLUTIONS

Akhil Mathew
SENIOR ANALYST, BUSINESS INTELLIGENCE & ANALYTICS
TARGET

Graduates of the MSBA program have joined some of the world's most exciting companies in roles that are as challenging as they are satisfying.

Pengfei Alex Song
BUSINESS ANALYST
AMAZON

Karthik Mahendran
DATA ANALYST
MCKINSEY & COMPANY

Xin Miao
FINANCIAL ANALYTICS SENIOR ANALYST
AMERIPRISE FINANCIAL

Shuo Feng
BUSINESS INTELLIGENCE ANALYST
GOOGLE

Vivek Vancha
SENIOR DATA ANALYST
PRICELINE

Kshithi Venkatesh
STATISTICAL ANALYST
WALMART

SEE YOURSELF HERE

The Carlson School sits near the heart of the thriving Minneapolis-St. Paul metro area. Home to Target, 3M, Medtronic, Best Buy, General Mills, and UnitedHealth Group, the area also boasts a thriving entrepreneurial scene.

Professional sports teams, world-class arts and cultural attractions, and abundant parks add to the region's reputation as one of the most livable places in the nation.

#1 State for Business
CNBC

18 *Fortune* 500 company headquarters

8 of the largest private companies in the United States
Forbes

#4 Best City for Young Entrepreneurs
Nerd Wallet

#3 Top City in the World for Attracting Recent Graduates
LinkedIn

Fastest-growing state for tech jobs
Dice.com (based on U.S. Bureau of Labor Statistics data)

FULL-TIME MSBA PROGRAM

ACCELERATE YOUR ANALYTICS CAREER

Graduate in one year with deep knowledge and in-demand analytics expertise. **Full-time** students begin the program in June, complete three intensive semesters, and graduate the following May.

1 YEAR
begin in June, graduate next May

DAYTIME CLASSES
full-time, cohort-based study

STEM
designated by Homeland Security

45 CREDITS
rigorous academic study

SUMMER SEMESTER

BUSINESS AND MANAGEMENT FUNDAMENTALS

- Analytics for Competitive Advantage
- Introduction to Statistics for Data Scientists
- Programming and Application Development
- Financial Accounting
- Marketing Management

FALL SEMESTER

TECHNICAL FUNDAMENTALS

- Data Management, Databases, and Data Warehousing
- Big Data Analytics
- Building and Managing Teams
- Exploratory Data Analytics and Visualization
- Predictive Analytics

SPRING SEMESTER

ADVANCED ANALYTICS AND EXPERIENTIAL LEARNING

- Advanced Issues in Business Analytics
- Data-Driven Experimentation and Measurement
- Modeling and Heuristics for Decision Making and Support
- Project Management of Analytics Projects
- Experiential Learning Project

Subject to change. For course descriptions, visit carlsonschool.umn.edu/ft-msba-structure

PART-TIME MSBA PROGRAM

SYNCHRONIZE YOUR SUCCESS

Earn a degree in data analytics while you work. **Part-time** students attend classes in the evening, which provides flexibility for working professionals.

2 YEARS
begin in September, study while you work

FLEXIBLE
evening, online, and condensed format classes

2-3 CLASSES
(6-9 credits) per semester

45 CREDITS
rigorous academic study

BUSINESS AND MANAGEMENT FUNDAMENTALS

- Analytics for Competitive Advantage
- Introduction to Statistics for Data Scientists
- Nine Credits Business Electives:*
  - Business Ethics
  - Financial Accounting
  - Financial Management
  - Management and Organizational Behavior
  - Managerial Accounting
  - Managerial Economics
  - Marketing Management
  - Operations Management
  - Strategic Management

**Additional elective options are available*

TECHNICAL FUNDAMENTALS

- Math Foundations for Business Analytics
- Programming and Application Development
- Data Management, Databases, and Data Warehousing
- Big Data Analytics

ADVANCED ANALYTICS AND EXPERIENTIAL LEARNING

- Exploratory Data Analytics and Visualization
- Predictive Analytics
- Advanced Issues in Business Analytics
- Data-Driven Experimentation and Measurement
- Modeling and Heuristics for Decision Making and Support
- Capstone Project in Analytics

Subject to change. For course descriptions, visit carlsonschool.umn.edu/pt-msba-structure

ADMISSIONS

Qualified applicants should demonstrate a capacity for intense academic study, a propensity for mathematics and programming, and a basic understanding of business fundamentals. Ideal candidates should meet these criteria (see website for details):

- ✔ Undergraduate degree in economics, mathematics, engineering, business, computer science, statistics, or related field is preferred, but not required
- ✔ Demonstrated proficiency in at least one of the following computer programming languages is required: Python, R, C, C++, C#, VB, Java, Pascal, and Fortran. Academic transcripts, certificates from online courses, or work experience may be cited to meet this requirement. See website for details.
- ✔ At least one semester college level calculus course with a grade "C" or better required
- ✔ Work experience is not required, but strongly preferred

NOTE: *International students who require an F-1 visa are not eligible for the part-time program.*

Apply Now

Visit: carlsonschool.umn.edu/msba-application

APPLICATION DEADLINES

FULL-TIME MSBA

The full-time program begins only in June.

Round 1	**November 1**
Round 2	**January 1**
Round 3	**February 1**

PART-TIME MSBA

The part-time program begins only in fall semester.

Round 1	**December 1**
Round 2	**February 1**
Round 3	**April 1**
Round 4	**June 1**

APPLICATION CHECKLIST

- ☐ Official GMAT or GRE score*
- ☐ Official academic transcripts
- ☐ Current resume
- ☐ Personal statement
- ☐ Three letters of recommendation
- ☐ English Language Test Scores (if applicable)
- ☐ Online application and processing fee
- ☐ Interview *(only applicants who present strong credentials will be invited to interview with a member of the Admissions Committee)*

* **PART-TIME MSBA ONLY:** *In certain circumstances, a waiver may be applied to fulfill this requirement*

Connect with Us

Discover how the Carlson School's Master of Science in Business Analytics program can help you achieve your learning and career goals. Contact us to ask questions, attend a recruiting event, or schedule an appointment with an admissions counselor.

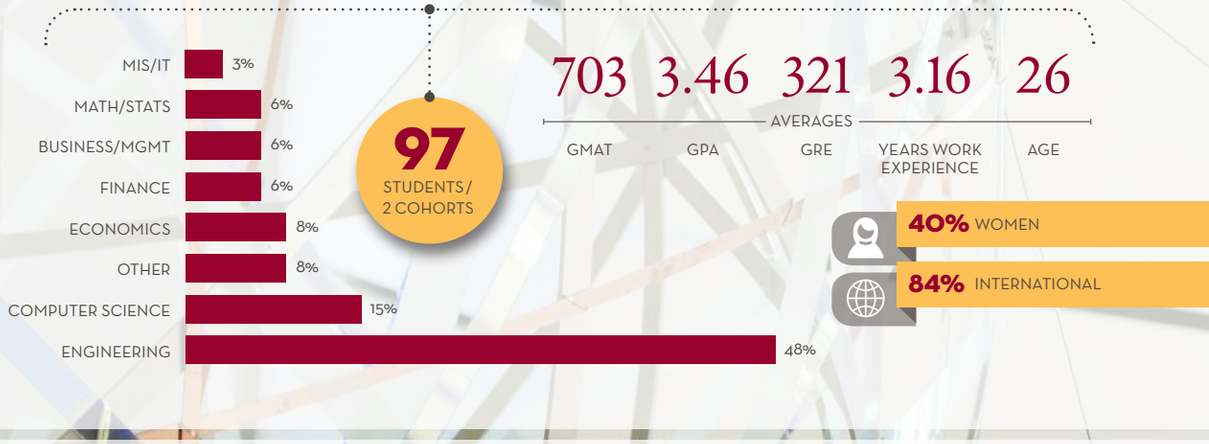
Master of Science in Business Analytics
Carlson School of Management
321 Nineteenth Avenue South, Suite 1-110
Minneapolis, MN 55455

Full-Time MSBA and
general inquiries: msba@umn.edu

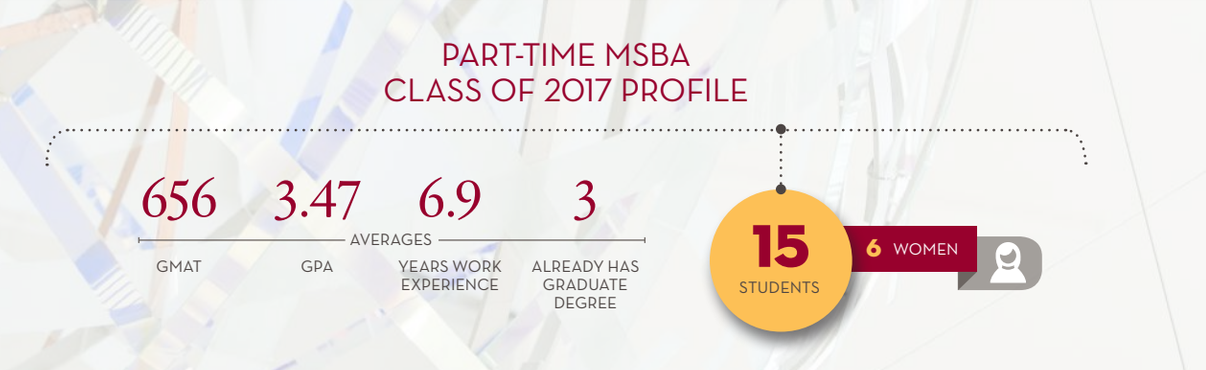
Part-Time MSBA: ptmsba@umn.edu

Phone: 612-625-5555
carlsonschool.umn.edu/analytics

FULL-TIME MSBA CLASS OF 2018 PROFILE



PART-TIME MSBA CLASS OF 2017 PROFILE



Carlson MBA and MS Programs
Carlson School of Management
University of Minnesota

321 Nineteenth Avenue South, Suite 1-110
Minneapolis, Minnesota 55455-0438

carlsonschool.umn.edu/analytics