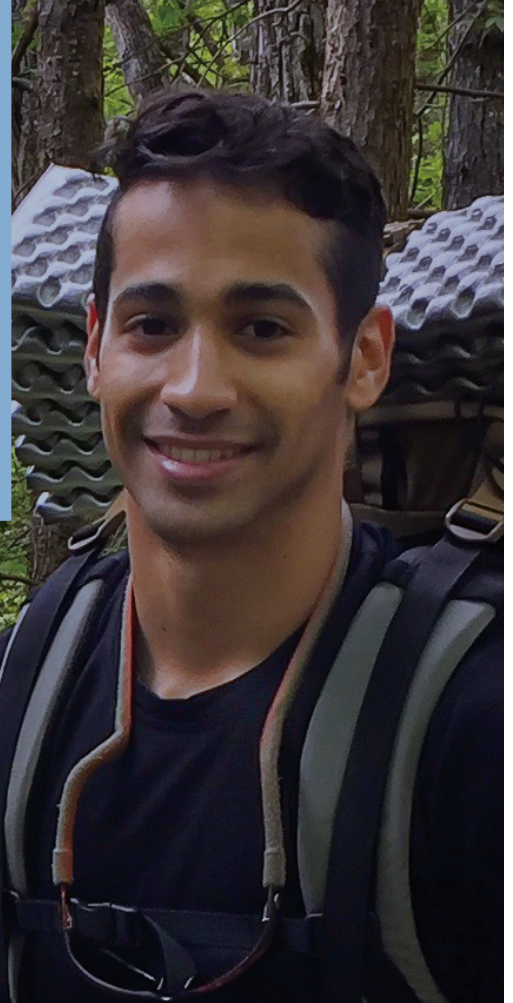# MADS

## MASTER OF APPLIED DATA SCIENCE

### EMPLOYMENT REPORT

## 2022

**SCHOOL OF INFORMATION**
UNIVERSITY OF MICHIGAN

# About this report

The University of Michigan School of Information (UMSI) Career Development Office surveys our graduates to identify their post-graduation plans and outcomes. This report summarizes outcomes from 2021 MADS (Master of Applied Data Science) graduates, the MADS program's first, who completed the survey by the deadline or for whom a known outcome was reported in other ways. Of the 111 MADS students who graduated in 2021, 63% responded to the survey or reported their outcome in other ways.

It is important to note that MADS students participate in this online program from around the world, bringing in a variety of experiences, as well as goals for participating in this program i.e., career advancement/promotion, new job, new field, skill development, salary boost, etc.

**$101K**
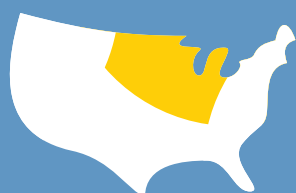OVERALL AVERAGE SALARY

**$107K**
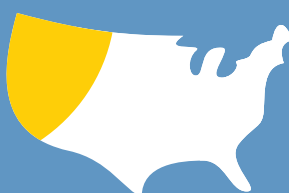US-BASED AVERAGE

**$98K**
INTERNATIONAL-BASED AVERAGE (USD)

*Average salary reported for all respondents who indicated they had accepted **a new job in the data science field.***

# Where our graduates are working

Midwest
**37%**
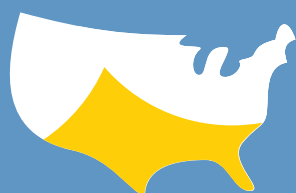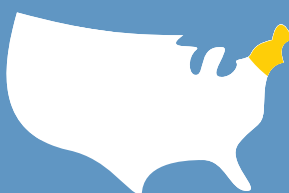
West
**14%**

International
**26%**

South
**15%**

Northeast
**8%**

**International students job locations**

| | |
|---|---|
| China | 6 |
| India | 4 |
| United States | 4 |
| Canada | 3 |
| Chile | 1 |
| England | 1 |
| South Africa | 1 |

# Value of UMSI courses

## 89%

of respondents indicated that the MADS curriculum was relevant to their job outcome

## Top industries our graduates are working in

Health system/
healthcare
**19%**

Technology
**18%**

Financial services/
insurance
**14%**

Manufacturing
**12%**

Consulting
**8%**

University/college
dept. or service unit
**8%**

Consumer goods
& services
**7%**

Start-up/
entrepreneurial
**4%**

Government
**3%**

Aerospace/defense
**1%**

Entertainment/
gaming
**1%**

Law/legal
**1%**

Logistics
& delivery
**1%**

Nonprofit/NGO
**1%**

Real estate
**1%**

# Salaries by top industries

**$124K**
Technology

**$97K**
Health/medicine

*Specific to respondents who indicated they had accepted **a new job in the data science field***

# Most valuable UMSI experiences for job outcome

› Milestone and capstone courses
› Supervised/ unsupervised learning
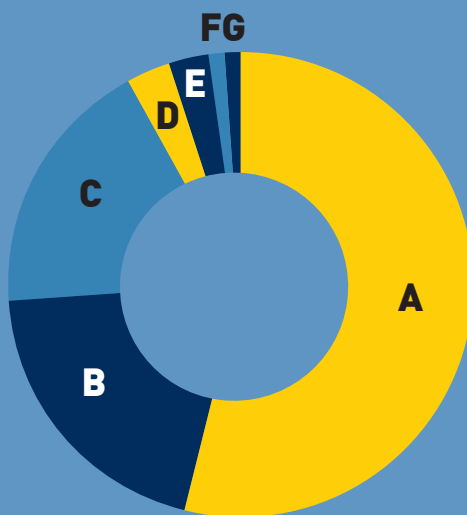› SIADS 505–Data Manipulation

**3 MONTHS**

Average job search length

*Specific to respondents who indicated they had accepted **a new job in the data science field***

# Job search status

## US STUDENTS



## INTERNATIONAL STUDENTS



| U.S. | | | INT'L |
|---|---|---|---|
| 54% | A | I have accepted a new job. | 43% |
| 20% | B | I am currently employed and plan on pursuing advancement/or have moved into an advanced role with my current employer. | 24% |
| 18% | C | I am currently employed and do not plan to job search at this time. | 19% |
| 3% | D | I have paused my job search at this time. | 5% |
| 3% | E | I am still job searching for a data science position. | 0 |
| 1% | F | I am starting my own business. | 4% |
| 1% | G | I am continuing my education. | 5% |

# Salaries by region

**$130K**
Northeast average salary

**$120K**
West average salary

**$100K**
South average salary

**$98K**
Midwest average salary
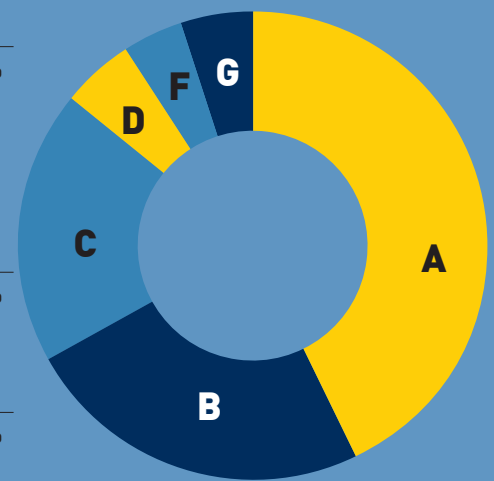
# Most effective job search methods

**7%** Other

**13%** U-M Career Services

**20%** National job boards (Indeed, LinkedIn, Glassdoor)

**Networking** (personal & professional contacts) **30%**

**30%** Company web sites
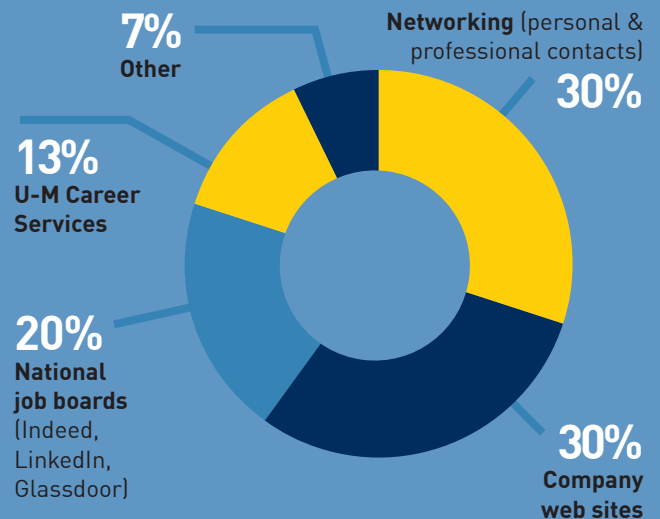
# Most valuable SKILLS gained at UMSI for job outcome

Problem solving/critical thinking **29%**

Multicultural/global fluency **1%**

**5%** Leadership/professionalism

**8%** Communications

**13%** Collaboration/group work/team

**16%** Research

**28%** Technology
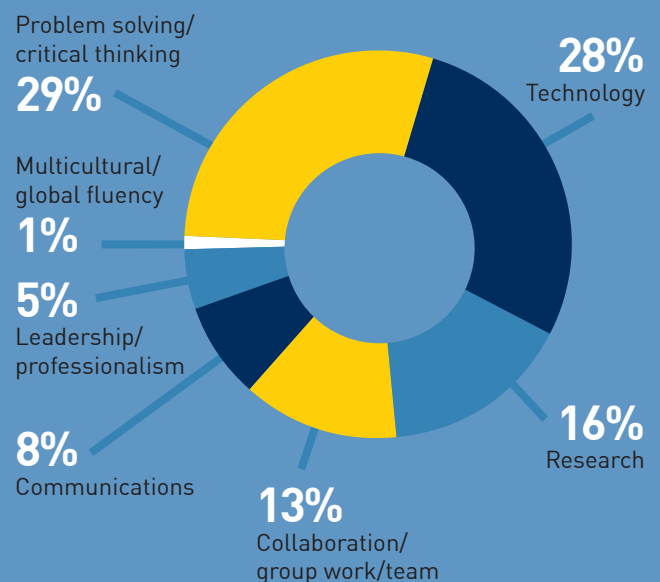
# Most valuable TECH SKILLS gained at UMSI for job outcome
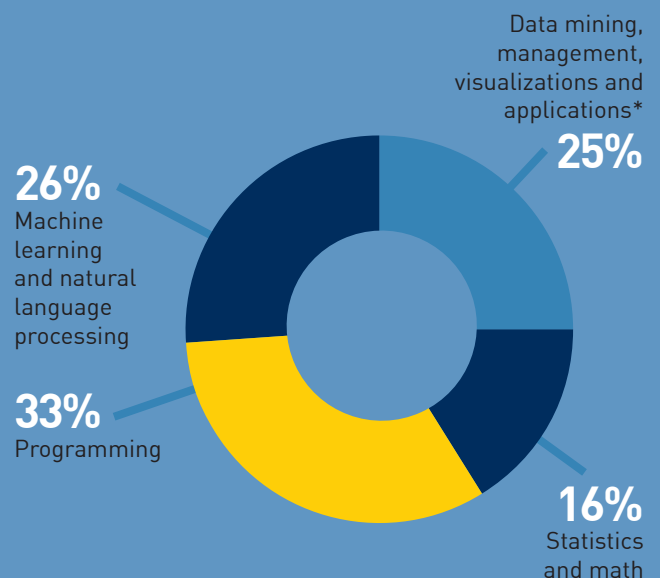
*SQL, Python, including Pandas rated as most valuable tech skills gained

**26%** Machine learning and natural language processing

**33%** Programming

Data mining, management, visualizations and applications* **25%**

**16%** Statistics and math

# Greatest impact of MADS program on career advancement goals

**5%**
Received a raise/recognition for my enhanced work/skills/impact

**7%**
Developed relevant projects to expand portfolio to make a career shift

**8%**
Started a new role in my career of interest

**17%**
Had more opportunities to engage in or work on new projects that I enjoy

**23%**
Enhanced skills to be more strategic or impactful in my current role

**21%**
Expanded knowledge development and growth for my most relevant top skills

**19%**
Refined my career goals

# Greatest impact of MADS program on future career outlook

**8%**
Had more opportunities to engage in or work on new projects that I enjoy

**8%**
Started my portfolio to start my career
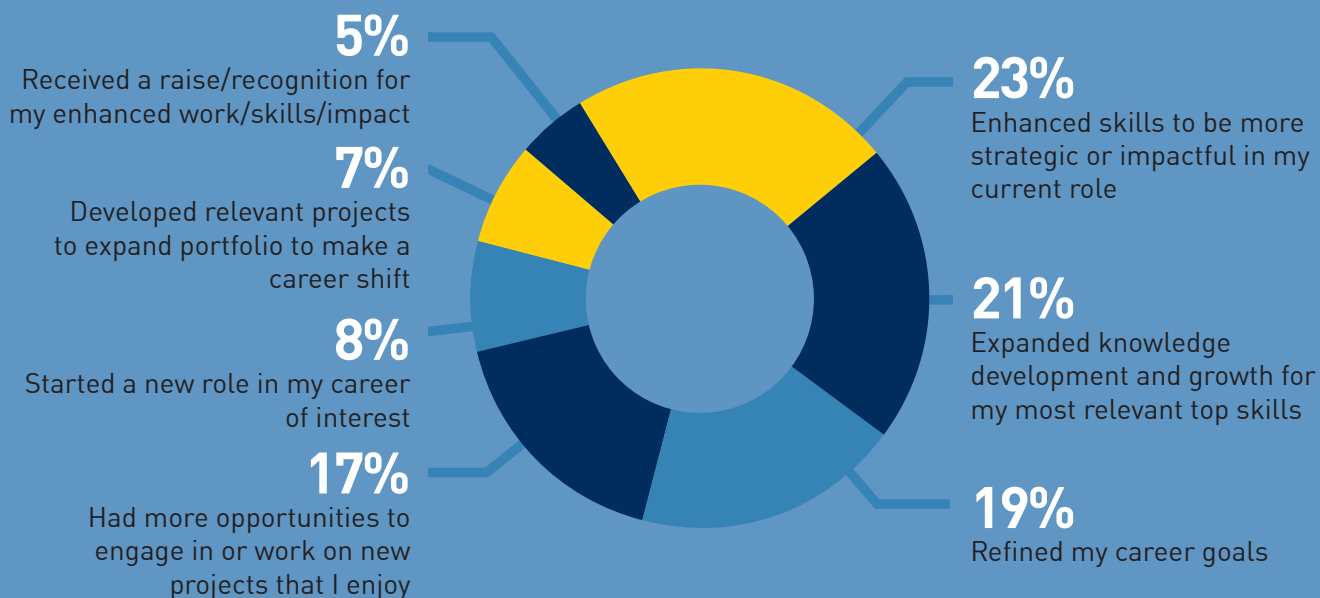
**11%**
Expanded knowledge development or application for my top skills

**13%**
Refined my career goals

**6%**
Expanded my portfolio to prepare for a career shift

**14%**
Expanded my professional network

**14%**
Identified and developed skills for my aspirational role

**13%**
Discovered new career opportunities

**13%**
Enhanced skills to be more strategic or impactful in my career

# 2022 Job Outcomes

*Asterisk indicates international student

## Aerospace/defense

| Associate Director | Collins Aerospace MI, USA |
|---|---|

## Consulting

| *Founder | AWDC Montreal, Canada |
|---|---|
| *Analytics Fellow | McKinsey Shenzhen, China |
| Data Scientist II | Qodex MI, USA |
| Data Scientist | Splash Analytics MI, USA |
| Data Scientist | Upwork MI, USA |

## Consumer goods & services

| Business Intelligence Manager | Caribou MN, USA |
|---|---|
| Data Scientist | Expedia Group WA, USA |
| Associate Data Scientist | Kohl's WI, USA |
| Analytics & Insight Manager | Procter & Gamble TX, USA |

## Financial services/insurance

| Sr Data Scientist | Allianz Germany |
|---|---|
| *Senior Portfolio Management | Covadonga Wealth Management Santiago, Chile |
| Director of Quantitative Research | Exegy MO, USA |
| Business Analyst | Flow Traders NY, USA |
| Chief Investment Officer | Lido Advisors CA, USA |
| Senior Insights Analyst | Ryan Companies MN, USA |
| Data Scientist | Sedgwick PA, USA |
| *Director | Sixteen Seven Limited Hong Kong, China |
| *Data Engineer | Sunlife Toronto, Canada |

## Entertainment/sports

| Data Analyst | Major League Baseball NY, USA |
|---|---|

## Government

| *Senior Statistician | Census and Statistics Department, Hong Kong Government Hong Kong, China |
|---|---|
| Data Scientist | Orlando Utilities Commission, FL, USA |

## Health/medicine

| Data Scientist | Blue Cross Blue Shield IL, USA |
|---|---|
| Data Scientist | CVS Health RI, USA |
| Data Scientist | Gainwell Technologies AR, USA |
| Data Scientist | Healthfirst NY, USA |
| Data Scientist | Michigan Medicine MI, USA |
| Machine Learning Engineer | Michigan Medicine MI, USA |
| *Team leader | Novartis Healthcare Pvt. Ltd., Telangana, India |
| *Data Steward | Novartis Healthcare Pvt. Ltd., Telangana, India |
| *Analytics Engineer - Lead | Novartis Healthcare Pvt. Ltd., Telangana, India |
| *Global Customer Insights & Data Science Lead | Novartis Healthcare Pvt. Ltd., Telangana, India |
| Development Engineer | Ormco Corporation CA, USA |
| Data Scientist | TriNet TX, USA |
| Senior Analyst | Vizient, Inc. MO, USA |

## Law/Legal

| Partner | Epstein, Becker & Green WA, USA |
|---|---|

## Logistics & Delivery

| | |
|---|---|
| Data Scientist | Canada Post Ontario, Canada |
| Data Scientist | First Quantum Minerals South Africa |
| Data Scientist | Ford Motor Co MI, USA |
| Data Scientist | Ford Motor Co MI, USA |
| Data Scientist | General Motors MI, USA |
| IT Operations Specialist | General Motors MI, USA |

## Manufacturing

| | |
|---|---|
| Advanced Sr Engineer | Stellantis MI, USA |
| Lead Data Scientist | The Tesca Group London, England |
| Data Governance Analyst | Whirlpool Corporation MI, USA |

## Nonprofit/NGO

| | |
|---|---|
| Data Scientist 1 | Noblis VA, USA |

## Real Estate

| | |
|---|---|
| Development Manager | Ethos Development Partners, MI, USA |

## Start-up/entrepreneurial

| | |
|---|---|
| *Data Scientist | Startup Hong Kong, China |
| Software Engineer/Data Scientist | Trust Lab CA, USA |

## Technology

| | |
|---|---|
| Cyber Technology Specialist | Darktrace IL, USA |
| *Head of IT Development | Dotted Company Limited Hong Kong, China |
| Data Scientist | Harver TX, USA |
| Business Intelligence Analyst | Indeed TX, USA |
| Data Scientist | Microsoft WA, USA |
| Senior Technical Consultant and Analyst | Plante Moran MI, USA |
| Data Scientist | Qualtrics WA, USA |
| *Data Scientist | Snapdocs CA, USA |
| Senior Engineer | Toyota MI, USA |
| Senior Datawarehouse Developer | TTX Company IL, USA |

## University/College

| | |
|---|---|
| *Data Science and Learning Analytics Developer | Carnegie Mellon University, School of Computer Science, Language Technologies Institute, PA, USA |
| Research Assistant | Stanford University CA, USA |
| *Graduate Student | Tsinghua University Shenzhen, China |
| Data Project Manager | University of Michgan ICPSR, MI, USA |
| Data Manager | University of Michigan School of Public Health Prevention Research Collaborative, MI, USA |

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