

Discover How Students Can Help Your Business During COVID-19

Joanna Kroll, Director of Career Development Office
UM School of Information
Kelly Kowatch, Director of Engaged Learning Office
UM School of Information



**SCHOOL OF
INFORMATION**
UNIVERSITY OF MICHIGAN



Information
changes
everything.

Goals

- Introduction to the University of Michigan School of Information UMSI and Student Talent
- Answers to Common Questions Regarding Virtual Internships and Remote Work
- Assess Your Needs and Capacity
- Identify a Structure That Works For You
- Best Practices and Tips for Success
- Next Steps To Hire UMSI Student Talent
- Questions and Answers

Information changes the world

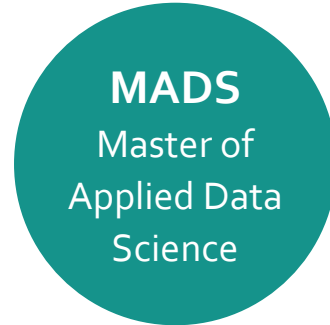
UMSI information professionals unite people, data and technology to make life better.



Fixing **the
fast lane**

Jacob Haspiel is using information to make driverless cars trustworthy.

U-M School of Information Degrees



In what areas
are UMSI
graduates
**leaders &
best?**



UX research
& design



Social media &
social computing



Human-computer
interaction (HCI)



Information
visualization



Applied data
science



Data mining
& analytics



Digital libraries
& information
science



Digital archives
& preservation



Educational
technologies &
learning analytics



App design &
development



Augmented
reality &
virtual reality



Communication
technology & social
change (ICTs)



Health
informatics



Business strategy
& analysis



Tech consulting



Product
management

UMSI Student Top Tech Skills

Coding

User
Experience
Design Tools

User
Research

Wire
Framing

Visual
Communication

Database
Design &
Management

Data
Visualization

Data
Analytics

User
Interface
Prototyping

Process
Design

Digital
Curation

Agile
Development

BSI Bachelor of Science in Information

Pathways:

UX Design

**Information/Data
Analysis**

The BSI is an upper-level undergraduate degree, completed during junior and senior years.

The interdisciplinary program encompasses both the social and technical aspects of the digital revolution, examining major issues at the intersection of people, information and technology.



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MSI

Master of Science in Information

Pathways:

UX Research and
Design/Human-Computer
Interaction

Data Analytics/Data Science

Digital Archives/Libraries and
Preservation

The MSI is a two-year professional degree which prepares students for emerging careers that meet the rapidly growing information-management needs of an increasingly interconnected world.

As businesses and society grapple with the challenges and opportunities of the digital age, MSI graduates play a crucial role in analyzing, systematizing and evaluating the massive digital resources and data generated by the digital revolution.

Our graduate programs attract students from more than 100 majors.



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MHI

Master of Science in Health Informatics



MADS

Master of Applied Data Science

NEW online program in Fall 2019

Applied data science at the intersection of people and technology.

Multidisciplinary approach to data science embedded in information, computer science and statistics.

The majority of students are working professionals averaging 10+ years of professional work experience around the world.



PhD Doctorate in Information Science

The doctoral program at the School of Information is a full-time pursuit over four to five years that enables students to engage in advanced study and original research into information issues and problems. Graduates hold positions as faculty at a number of top-ranked universities and as researchers at companies such as Google and Microsoft.

PhD student
Jeff Huang is using
information to make
robots more human.



Art
History
Depression
Energy
Robotics
Food
Education
Communities
Technology
Justice
Economics
Transportation
Media
Business

Student Demographics

Enrollment:

- BSI Undergraduates (350 students)
- MSI Masters Students (450)
- MHI Masters Students (100)
- MADS Masters Students (150)
- PhD Students (80)

Average Years of Work Experience:

- Undergrads (1-2 internships)
- Masters (3-4 years)
- MADS online master's students (10+ years)- participating in online program part-time *while working full-time*

Diversity

- 30% International Students (China, India, Korea)
- 10-15% Under-Represented Minorities (URM)
- Gender representation: 60% female; 40% male



BSI Program

Curriculum Components

Courses

- Data oriented programming
- Data manipulation
- Data exploration
- User modeling
- Web design, development and accessibility
- Interaction design
- Building interactive applications
- Usability evaluation

Internships

- Nike
- Amazon
- IBM
- Yelp
- Airbnb
- Microsoft
- Accenture
- Ford
- Oracle
- GM
- American Express
- Capital One

Capstone Projects

- Information Analysis
- User Experience Design

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MSI Data Analysis & Science

Curriculum Components

Courses

- Contextual inquiry and consulting
- Programming
- Statistics
- Data manipulation and analysis
- Data mining
- Natural language processing
- Information visualization
- Machine learning
- Information retrieval

Internships

- Google
- Amazon
- IBM
- Facebook
- Microsoft
- Ford
- GM
- Sapient/Razorfish
- SAP
- Airbnb
- Yelp
- Nike
- KPMG
- Deloitte

Client Engaged- Projects

- Big Data Analytics
- User Centered Agile Development

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MSI UX Design & Research/HCI

Curriculum Components

Courses

- Contextual inquiry and consulting
- Programming
- Graphic design
- Interaction design
- Fundamentals of human behavior
- Needs assessment and usability evaluation
- Tech and accessibility
- Personal informatics design
- Privacy in IT

Internships

- Google
- Amazon
- IBM
- Facebook
- Microsoft
- Ford
- GM
- Sapient/Razorfish
- SAP
- Airbnb
- Yelp
- Nike
- KPMG
- Deloitte

Client Engaged- Projects

- Contextual Inquiry
- UX Design/Research
- Needs Assessment and Usability
- Citizen Interaction Design
- User Centered Agile Development

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MSI Digital Archives/ Libraries and Preservation

Curriculum Components

Courses

- Contextual inquiry and consulting
- Programming
- Principles of records and archives
- Information resources and services
- Information law
- Learning and teaching with tech
- Collection development
- Information organization
- Digital curation

Internships

- U.S. National Gallery of Art
- Carhartt, Inc.
- H.B.O.
- Interlochen Center for the Arts
- State of Michigan Archives
- MD Anderson Research Medical Library

Client Engaged- Projects

- Needs Assessment and Usability
- Engaging with Communities
- Citizen Interaction Design
- Librarianship and Archival Practice

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MSI Digital Curation

Curriculum Components

Courses

- Contextual inquiry and consulting
- Programming
- Principles of records and archives
- Information resources and services
- Design of complex websites
- Semantics-based knowledge descriptions and organizations
- Web archiving
- Digitization cultural heritage materials

Internships

- Harvard University
- National Archives at Philadelphia
- Rockefeller Foundation Archives
- Henry Ford Museum

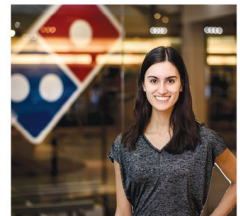
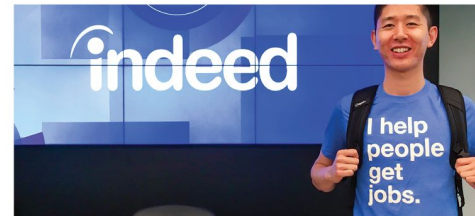
Client Engaged- Projects

- Needs Assessment and Usability
- Engaging with Communities
- Citizen Interaction Design
- Digital Curation

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Job & Internship Outcomes

- UX Designer
- Business Analyst
- Systems/Tech Analyst
- Data Analyst
- Data Engineer
- Data Scientist
- Usability Engineer
- UX Researcher
- Product Designer
- Product Manager
- Tech Consultant
- Social Media Strategist
- Digital Archivist
- Librarian



UMSI

Top Industries

- Software/Tech
- Consumer Products
- Manufacturing
- Consulting
- Healthcare
- Marketing/Digital Agencies
- Financial Services
- Education and Libraries
- Nonprofit
- Start-ups



Employment Executive Summary

2019 Employment Report Executive Summary



University of Michigan School of Information graduates obtain innovative, diverse, professional jobs in a wide range of work settings and positions, from public/academic libraries, and

nonprofits to the largest consulting, tech, and internet companies in the world. The nature of the positions range from entry-level to senior level and management positions.

Top industries our graduates are working in

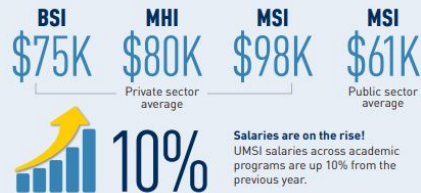


Where our graduates are working



Our graduates' salaries

UMSI salaries are competitive and are reported at the top of national salaries in comparative career fields and industries. Our graduates' salaries hold one of the highest rankings according to the Library Journal salary report. Because salaries vary by degree program, industry/sector, and geographic region, specific salary outcomes by academic programs are available in the program-specific employment reports.



2019 PhD Job Outcomes

UMSI PhD graduates continue to succeed in both industry and academic careers. This year 100% of graduates reported jobs in their field of choice. Of the 7 graduates, 3 accepted positions in industry, and 4 accepted positions in academia.

Associate Director for Research & Development	University of Michigan, Office of Academic Innovation
Asst Professor	University of Michigan Medical School
Research Fellow	University of Michigan School of Information
Post Doc Researcher	New York University Al Now Institute
Software Engineer	Kindred.ai
Data Scientist	Uber
LX Researcher	Google

Contact the UMSI Career Development Office to discuss your job search, or to receive information on hiring UMSI grads. umsi.careers@umich.edu

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Curricular Engagement

Bachelors-Level Capstone Projects

- Information/Data Analysis
- UX Design

Masters-level Projects

- Big Data Analytics
- Needs Assessment & Usability Evaluation
- UX Research and Design
- Contextual Inquiry and Consulting
- User-Centered Agile Development
- Developing Social Computing
- Digital Curation
- Information Process Flow



Student Engagement & Recruiting

Options During
COVID-19

- Virtual Information Sessions
- Job Postings
- Resume Books
- Virtual Office Hours (for resume reviews, interview prep)
- Virtual Design Challenges
- Hire an Intern!



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Common Questions

WHAT IS A VIRTUAL INTERNSHIP?

A virtual internship is like an in-person internship, except that it's done entirely online. The intern gains valuable experience while working remotely, rather than being physically present within a "typical" office setting.

WHAT ARE SOME OF THE BENEFITS OF VIRTUAL INTERNSHIPS?

Virtual internships are powerful vehicles of career exploration for students and are a strategy for attracting and retaining top talent. Virtual internships allow interns to work from whichever locations are most convenient to them, and work hours are often more flexible. This flexibility is one of the reasons why virtual internships support greater accessibility to meaningful professional experiences for students. This can also be very beneficial to employers when the need for flexible work arrangements arise.

Common Questions

HOW DO INTERNS COMMUNICATE WITH EMPLOYERS IN A VIRTUAL INTERNSHIP?

In a virtual internship setting, interns primarily communicate with an employer through email, phone and video calls, and your organization's internal instant messaging application such as Slack, Webex, Zoom, BlueJean, or Google Hangout Chat, among others.

WHY SHOULD EMPLOYERS CONSIDER VIRTUAL INTERNSHIPS OR WORK WITH STUDENTS DURING AN ALREADY CHALLENGING TIME DUE TO COVID-19?

Next slide answers the WHY?

Assess Your Needs & Capacity

Business Case Considerations

- Expand capacity and support to meet current and future business challenges
- Tap into innovative and creative ideas, as well as enthusiasm and energy from an eager-to-learn student
- Bring in new skills and cutting-edge technical aptitude to enhance team
- Pre-screen or “test” potential future employees
- Continue momentum on hiring talent for future
- Position the advantage of being a local company for continuation of work beyond summer 2020
- Diversify workforce
- Low-cost in terms of budget and long-term commitment to hire a student intern (no commitment for anything beyond the initial project agreement)
- UMSI students are skills and very comfortable with tech tools and platforms to easily step into and navigate a virtual work experience

Assess Your Needs & Capacity

Business Case
Considerations

Capacity

- Time For Supervision/Mentoring
- Team Support & Engagement
- Review and Feedback
- Technology & Resources
- Budget/Funding

Identify a Structure that Works for You

Project-Based work model is ideal

- One or multiple projects
- New and/or ongoing projects

Duration

- Long term: 9-12 weeks (or longer)
- Short-term: 1-4 weeks
- Make sure the duration is sufficient for impact

Mentorship/Supervisory Capacity

- Access to mentor/supervisor for weekly check-ins on progress and support
- Mentors provide an evaluation at completion
- Mentor should be more knowledgeable of the work than the student (student should not be the expert)

Identify a Structure that **Works for You**

Hours Per Week

- 5-40 hours

Pay Rate

- Hourly, stipend, lump sum
- Average for UMSI students: \$15-\$25/hr (depends on nature of the work, skills and experience)

If Internship Funding Has Been Impacted by COVID-19

U-M School of Information: Student Internship Grant

- School support for supplemental funding for unpaid or low-paying internships for startups, nonprofits, service-based, and/or entrepreneurial work
- Students can apply and request funding as deemed necessary. It is expected that compensation is discussed at the start of the recruiting process for transparency and planning for the student.
- Note that grants are competitive and quality of application is considered in the review process

U-M Business Engagement Center: [Small Company Internship Award](#) (or contact Amy Klinke amyklink@umich.edu)

- Under 250 employees
- Must be either a STEM position and/or STEM Company
- Must be a matriculated U-M student - (We are also accepting from Western, Wayne State, MSU, Michigan Tech and UM-Dearborn)
- The program will cover half of the interns salary up to \$3,500-- so if they are paid a total of \$8k, we will pay \$3,500 or if the total is \$4k, we will pay \$2,000.
- The company has to be mostly based in the State of Michigan

Setting Up For Success

Start Strong With An Onboarding Plan

Sample Onboarding Plan

Allocate more time prior to, as well as at the start of, the internship for the following:

- Select and test and the right software for managing work
- Student training to use the new software/systems (if students are expected to use new software or information technology, it should be provided free-of-charge)
- Develop a work plan for the intern, training materials, activities and tools that the intern will need to be successful in the role
- Establish cultural and professional norms and expectations i.e., communications plan, supervisory meeting expectations, team culture, working with other members of the team, etc.
- Clearly define expectations for both the intern and the supervisor/mentor. These need to be agreed upon before the start of the internship. Goals and expectations should be reinforced on a regular basis

Setting Up For Success

Create a Written Work Plan

Create a Written Work Plan

- It is essential that all tasks and projects are carefully prepared and planned in order for the virtual intern will be able to manage the work effectively by themselves. The co-creation of a written work plan that covers the entirety of the experience is suggested.

Setting Up For Success

Access to Information

Access to Information and Resources

- Because the intern will not have the opportunity to have the everyday interactions of the workplace, the materials, systems, tools, instructions and task descriptions need to be well prepared and available online so that they have access to that information when it is needed

Setting Up For Success

Team Engagement

Team Engagement

- For the supervisor, it is suggested that you engage the rest of your team in the delivery of the virtual internship experience. By doing this the intern will have the opportunity to interact with several individuals throughout the course of the experience.
- Additional contacts within the organization will help to reduce workflow bottlenecks for project-based work.

Setting Up For Success

Create Balance

Create Balance

- Create and deliver a well-balanced experience for your intern
- Share about your organization's structure, culture, products, history
- Focus on professional development
- Engage in meaningful projects and work that will help to develop their overall ability to become a valuable team member in the future

Setting Up For Success

Technology & Access

Technology Resources for Delivering a Virtual Internship

- Face to Face Communication: GoToMeeting, Zoom, FaceTime, WebEx, Zoho Meetings, BlueJeans, Microsoft Team, etc.
- Other communication tools: Slack, Email, Google Chat, Instant Messenger, etc.
- Free Project Management Tools: Asana, OpenProject, Trello, nTask, Monday, etc.
- Online file sharing: Google Suite, DropBox, Box, etc

Setting Up For Success

Stay Connected

Establish Clear Communication Schedules and Channels

- Regular weekly meetings
- Ad hoc time to touch base
- Designated communication channels for quick questions (Slack, chat, texting)
- Require regular status reports
- Provide ongoing training, feedback and guidance
- Clearly define expectations for work hours, communications, and response time

Setting Up For Success

Flexible Work Schedules

COVID-19 Provides the Opportunity for Flexibility

- Virtual work affords the ability to be more flexible with working hours
- Students' work hours may be affected by caregiving responsibilities or location (time zone differences)
- Establish set-times for regular meeting and check-ins
- Define a working plan that allows for the work to be completed and communication to be abundant while meeting needs

Potential Challenges

Eliminate Obstacles!

- **SPONSORSHIP:** Sponsorship would not be required for hiring international students for summer professional work
- **MENTORSHIP:** If you have work for students, but cannot provide mentorship or supervision at this time, please know that we have alumni and/or faculty who could provide mentorship. We can help match students to a mentor for the duration of the work experience.
- **FUNDING:** If this is an unpaid or low-paying internship, students can apply for UMSI Internship Grant OR if your organization meets criteria for [UM-BEC Small Company Internship Award](#), apply for matching funding up to \$3,500.

What Students Want

- Skill-building opportunities (new learning!)
- Experience that enhances academic and career goals
- Opportunity to expand professional network
- To be valued
- Make an impact
- Mentorship

Next Steps

Questions & Answers

For more information or to discuss your organizations needs or determine next steps, contact Joanna Kroll jckroll@umich.edu or Kelly Kowatch kkowatch@umich.edu.

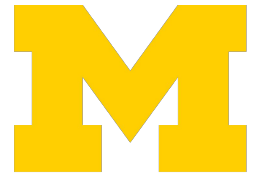
Send intern/project description to umsi.careers@umich.edu. It will be posted within 2 business days.

Learn more about client-based courses and capstone opportunities at umsi.info/clientopportunities

THANK YOU

Joanna Kroll, Director of Career Development jckroll@umich.edu

Kelly Kowatch, Director of Engaged Learning kkowatch@umich.edu



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Grads get
great jobs
 in great
 organizations.

- Accenture
- Adobe
- Airbnb
- Amazon
- Apple
- Bloomberg
- Boeing
- Cisco
- Deloitte
- Expedia
- Facebook
- Ford
- GE
- GM
- Google
- Groupon
- HBO
- The Henry Ford
- Hewlett-Packard
- IBM
- Kaiser Permanente
- Kellogg's
- Library of Congress
- Mayo Clinic
- Microsoft
- New York Public Library
- Northrop Grumman
- Oracle
- Pricewaterhouse Coopers
- Quicken Loans
- Rock and Roll Hall of Fame Archives
- Salesforce
- SAP
- Sapient
- The Smithsonian
- Trinity Health
- Uber
- University of Notre Dame Library
- Vanguard
- Walt Disney
- The World Bank
- Xerox
- Yahoo
- Yale University Library
- Yelp
- Zillow

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Recruiting Opportunities

Off-Campus Recruiting

- Job and Internship Postings
- Resume Books

On-Campus Recruiting

- Information Sessions
- Interviews
- Office Hours
- Career Fair
- Portfolio and Resume Reviews
- Design Jam
- Design Your Own Company Day



Sponsorship Opportunities

- add info here!

Most Effective Strategies

Student Engagement & Recruiting

On-Campus Brand Building

Company Day

Information Session

Interviews

Design Jam

Office Hours

Sponsorship

Career Fair

Student Project Exposition

Career Insider

Curricular Engagement

BSI UX Design or Data Capstone Project

MSI UX Design/Research or Data Course Projects

Focus on Intern Hires

100% of masters students participate in internships

95% of undergraduates participate in internships

10% PhD industry internships