

## About MICS

The Midwest Instruction and Computing Symposium (MICS) is a regional conference dedicated to providing an educational experience to students and instructors at higher education institutions. The conference focuses on the teaching of computing and its use in learning processes of all disciplines, and the incorporation of the study of this technology in the curriculum.

Activities include the presentation of technical papers and posters, programming and robotics competitions, a career fair, and a pizza party. Participants are primarily drawn from across the five-state region of Iowa, Minnesota, North Dakota, South Dakota, and Wisconsin. All are welcome to join us in Milwaukee.

This is the 53<sup>rd</sup> anniversary of the Symposium. Established in 1967, it is one of the nation's oldest conferences on computer-related issues and associated opportunities and implementation at smaller institutions of higher education.

For more information on the history and goals of the MICS organization, please see our site:

[www.micsymposium.org](http://www.micsymposium.org)

For information about MICS 2020, including more details about the conference—including contest specifics and links to the online submission and registration systems—please visit:

[www.micsymposium.org/mics2020](http://www.micsymposium.org/mics2020)

### Conference Location

MICS 2020 will be held in Milwaukee, WI at both the campus of Northwestern Mutual and Milwaukee School of Engineering (MSOE). Activities during Friday afternoon will be at Northwestern Mutual, and activities Friday evening and Saturday will be at MSOE.

MSOE and Northwestern Mutual are located in the heart of downtown Milwaukee blocks from each other. Parking for attendees will be provided (please indicate whether you need parking on the registration form).

## Call for Participation

The MICS Program Committee invites you to submit a paper, poster, demonstration, presentation, panel discussion topic, or nifty assignment. Faculty papers generally address aspects of computer science education, such as the use of computers in instruction, innovative pedagogy, or the integration of research with instruction. Student papers generally discuss a research activity. All submissions undergo thorough review. Student registrants may also participate in the programming and robot competitions. All submissions require an abstract of 300-500 words to be submitted no later than February 7th, 2020. Full versions of abstracts, papers, summaries, and assignments must be received by the final deadline of March 3th, 2020. Conference registration is required for acceptance, publication, and presentation of any materials.

### Papers

Paper abstracts must provide sufficient details to judge the submission. Student papers are strongly encouraged. (A student paper is one where a full-time student is the primary author and presents the paper; instructors may be secondary authors.) A full version of the paper must be submitted by the final paper deadline. A 20-minute presentation slot (which should include time for questions) will be scheduled. Awards for up to three meritorious student papers will be presented Saturday.

### Poster/Software Demonstrations

Posters can be stand-alone or follow up on previous presentations. To present a poster, submit an abstract before the initial abstract deadline; a final version should be submitted by the final paper deadline. Presentations will occur during a designated poster session.

### Panel Discussions

Panel discussions provide different points of view and facilitate discussion on contemporary topics. To host a panel, submit an abstract describing the topic and proposed panel members. Moderators for accepted panels should submit a short (2-3 pages) summary of panelist positions by the final deadline. Panel members are not necessarily expected to make formal presentations, but to facilitate discussion.

### Nifty Assignments

Nifty assignments provide a forum for sharing ideas and materials for interesting classroom assignments. Abstracts should specify the target course and basic pedagogical concepts. A paper should be submitted by the final deadline; a 20-minute presentation will be scheduled as part of a thematic session.

### Programming Contest

Student teams will compete against each other to solve a set of programming problems. Conference and contest registration is required and the number of accepted teams may be limited, so be sure to register early. Each team must be accompanied by a registered faculty coach who is willing to act as a contest judge. Cash awards will be presented to the top teams at the Saturday lunch.

### Robotics Contest

Student teams will build and program robots to compete against each other in a format to be determined. Conference and contest registration is required. Cash awards will be presented to the top teams.

### Career Fair

Student registrants will have the opportunity to meet with representatives from dozens of companies throughout the region. A list of companies and sponsors will be posted on the conference website. Please plan to come with your resume ready for onsite interviews!

### Important Dates

|                              |                   |
|------------------------------|-------------------|
| Abstract submission          | February 7, 2020  |
| Acceptance notification      | February 21, 2020 |
| Hotel registration deadline  | March 3, 2020     |
| Early registration deadline  | March 3, 2020     |
| Final paper due              | March 3, 2020     |
| Student contest registration | March 3, 2020     |
| Conference date              | April 3-4, 2020   |

### Registration Fees

| Rates:        | By March 3 | After March 3 |
|---------------|------------|---------------|
| Faculty/Staff | \$100.00   | \$125.00      |
| Student       | \$20.00    | \$30.00       |

## Keynote Speaker

This year's keynote will provide insight into both the breadth and depth of the AI revolution that our society has just begun to experience. Deep Learning and other AI approaches provide a new way to extract value and insights from vast amounts of data, and NVIDIA has been at the forefront facilitating and accelerating AI research and deployment. The largest, most complex AI models benefit from GPU acceleration, and these advancements have brought GPUs into the datacenter, unlocking new high performance capabilities that have transformed the world's largest supercomputer architectures. This talk will shed light on the breadth of AI applications as well as the challenges yet in front of AI researchers.

Jonathan Bentz is a Solutions Architect at NVIDIA, where he leads the team focused on higher education and research computing. In this role he has the privilege of working with universities and researchers as they unleash the power of accelerated computing to solve their most challenging problems in HPC and AI. Prior to NVIDIA, Jonathan worked for Cray as a software engineer developing and optimizing high-performance scientific libraries such as BLAS, LAPACK, and FFT. Jonathan obtained both his Ph.D. in physical chemistry and an M.S. in computer science from Iowa State University.

## Deep Learning Institute

New this year at MICS! NVIDIA Deep Learning Institute

Experience a FREE hands-on workshop on the Fundamentals of Deep Learning for Computer Vision. In this workshop you will learn the basics of deep learning by training and deploying neural networks to accomplish image classification. Basic programming fundamentals are the only prerequisite. Computing resources and dinner are provided, so just bring your laptop!



## City of Milwaukee

Milwaukee is the largest city in WI and is located on Lake Michigan's Western shore. The Milwaukee metro area has a population of approximately 2 Million people and is home to the Milwaukee Brewers, Milwaukee Bucks, countless parks, performing arts venues, and other attractions. Milwaukee is located approximately 90 minutes north of Chicago and 60 minutes West of Madison. Milwaukee is home to seven Fortune 500 corporations and has a lively tech startup scene.

## Accommodations

[Hyatt Regency Milwaukee](#) - \$129 - 3 blocks away  
[Hilton Garden Inn](#) - \$124 - 3 blocks away  
[Fairfield Inn & Suites Airport](#) - \$99 - 20 min away  
Book by 3/3/2020 for discounts  
Visit MICS website for more details and options

## Preliminary Schedule

### Friday, April 3rd

|                    |                             |
|--------------------|-----------------------------|
| 10:00 am - 1:00 pm | Registration at NM          |
| 1:00 pm - 3:00 pm  | Technical Sessions 1        |
| 2:30 pm - 3:30 pm  | Refreshment Break           |
| 3:00 pm - 4:00 pm  | Poster Session              |
| 3:00 pm - 5:00 pm  | Technical Sessions 2        |
| 4:00 pm - 5:30 pm  | Robotics Contest            |
| 5:00 pm - 6:00 pm  | Pizza Party, Poster Session |
| 5:45 pm - 6:15 pm  | Transition to MSOE          |
| 6:30 pm - 9:30 pm  | Programming Contest         |

### Saturday, April 4th

|                     |  |
|---------------------|--|
| 8:00 am - 10:00 am  | Registration at MSOE                   |
| 8:00 am - 9:30 am   | Technical Sessions 3                   |
| 9:30 am - 10:00 am  | Refreshment Break                      |
| 10:00 am - 11:15 am | Technical Session 4                    |
| 11:30 am - 12:15 pm | Keynote, Awards                        |
| 12:15 pm - 1:00 pm  | Lunch                                  |
| 9:30 am - 2:00 pm   | Career Fair                            |
| 1:30 pm - 8:00 pm   | Nvidia Deep Learning Institute, Dinner |

### Location:

Northwestern Mutual  
MSOE



April 3 - 4, 2020

Northwestern Mutual  
&  
Milwaukee School of Engineering

[www.micsymposium.org/mics2020](http://www.micsymposium.org/mics2020)  
[mics2020@micsymposium.org](mailto:mics2020@micsymposium.org)

