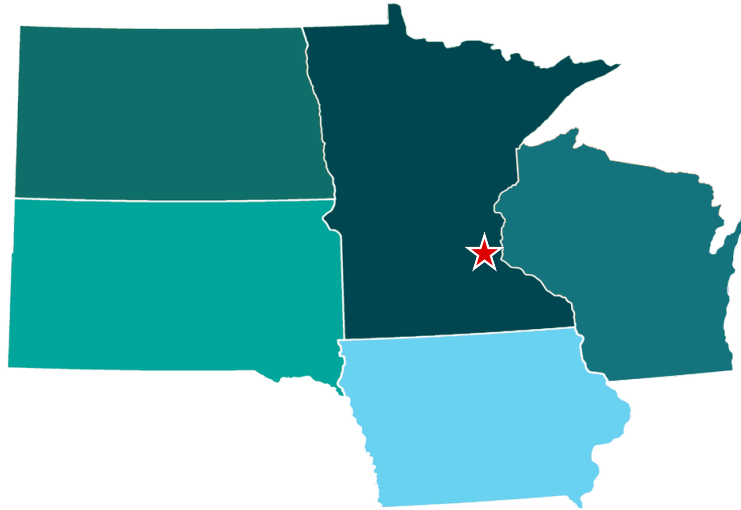# MICS 2025 Program
Augsburg University

Check In: 12:00 – 3:30 pm

Welcome and Announcements
1:40 – 1:50 pm   Hagfors Center Atrium

MICS 2025 Guest WiFi Network
SSID: mics2025   Password: AugU1869

Technical Session 1: 2:00 – 3:00 pm - Friday April 4, 2025

Cybersecurity : Hagfors 351		Session Chair: Mansi Bhavsar
2:00	Behavior as a Password: Machine Learning for Behavioral Biometric Authentication	Joe Moriwa, Rushit Dave and Mansi Bhavsar
2:30	Analyzing Ransomware Incidents in Healthcare: Patterns and Risk Assessment	Dominik Degele, Dawit Tesfaye and Muhammad Abusaqer

Reinforcement Learning : Hagfors 352		Session Chair: Alex Ewart
2:00	Winning is the Friends We Made Along the Way: Cooperative Reinforcement Learning	Alex Ewart, Mikhail Filippov, Peter Kwaterski, and Sam Keyser
2:30	Adaptive vs Traditional Q-Learning Methodology	Saif Khan, Kaif Khan and Cayden White

ML for Business : Hagfors 367		Session Chair:Muhammad Abusaqer
2:00	Evaluating Quick-Commerce Platforms: A Sentiment and Topic Modeling Analysis of User Reviews	Toshif Khan and Muhammad Abusaqer
2:30	A Web Application for Walmart Store Sales Forecasting	Biyasu A and Mao Zheng

ML using Computer Vision: Hagfors 373		Session Chair: Adrian Manchado
2:00	AI-Driven Soccer Analysis Using Computer Vision	Adrian Manchado, Tanner Cellio, Jonathan Keane and Ian Wang
2:30	Machine Learning for Active Matter: Tracking and Analyzing Hexbug Interactions	Yuva Gottimukala and Moumita Dasgupta

Computer Science Education : Hagfors 301		Session Chair: Mathew Wright
2:00	A Reconstructive Multi-Objective Hybrid Mixed Integer Genetic Algorithm: Enhancing University Course Timetabling with Adaptive Scheduling Solutions	Eric Weinberg
2:30	Computational Inquiry in Undergraduate Math Courses	Matthew Wright and Matthew Richey

Break: 3:00 – 3:30 pm - Snacks in Hagfors Center Atrium

Technical Session 2: 3:30 – 4:30 pm - Friday April 4

ML and Pattern Recognition : Hagfors 351		Session Chair: Mansi Bhavsar
3:30	Leveraging Machine Learning for Enhanced Music Recognition: Algorithms and Applications	Redeate Kidanue, Rushit Dave and Mansi Bhavsar
4:00	Exploring Development Patterns with Age Prediction	Kwadwo Owusu and Sayantica Pattanayak

ML in Medicine: Hagfors 352		Session Chair: Will Lassiter
3:30	Machine Learning-Assisted Vocal Cord Ultrasound Examination: Project VIPR	Will Sebelik-Lassiter, Quentin Robbins, Evan Schubert, Excel Olatunji, Mustafa Barry, Muhammad Alliyu and Merry Sebelik
4:00	Beautiful Brain Blueprint: Visual Stimulus Classification Through EEG Signal Analysis	Grace Ivey, Joey Barganz, Ben Williams and Zach Peterson

AI and Environmental Science: Hagfors 367		Session Chair: Sydney Balboni
3:30	Wildfire Spread Prediction Using Deep Learning	Sydney Balboni, Adam Swedlund, Zoe Kirkman, Reagan Burkemper, Mason Beynon and Michael Wood
4:00	SwarmRAG: A Distributed AI Framework for Environmental Modeling	Ben Paulson, Sydney Balboni, John Cisler, Brett Storoe and Thomas Benzshawel

AI in Education: Hagfors 373		Session Chair: Samantha Foley
3:30	Chatbot for Academic Advising	Avari Caya and Samantha S. Foley
4:00	Student Performance & Behavior Dataset	Asmita Pun, Breanna Olson and Abusaqer Muhammad

CS Education: Hagfors 301		Session Chair: Sean Jones
3:30	More Than Technical: Embedding Professional Competencies in a Software Requirements Course	Sean Jones
4:00	Web scraping IMDB site with Python – A ChatGPT proof assignment!	Mm Bari

Robotics Contest and Pizza Party
4:45 – 6:15 pm in Hagfors Center Atrium

Sponsored by:

Programming Contest Announcements
6:30 – 7:00 pm in Hagfors 150

Programming Contest
7:00 – 10:00 pm in Hagfors 150

Technical Session 3: 9:00 – 10:00 am - Saturday April 5

Faculty BoF: Hagfors 351		Session Chair: Samantha Foley
9:00	Faculty BoF: Exploring Faculty Hiring Trends and Opportunities at Our Institutions	Allison Sauppé and Samantha S. Foley

LLM Performance: Hagfors 352		Session Chair: Aiden Miller
9:00	Osire: Democratizing LLM Workflows for High Performance Computing	Adam Haile and Aiden Miller
9:30	An Extra RMSNorm is All You Need for Finetuning to 1.58 Bits	Cody Steinmetz, Gavin Childress, Jasdeep Singh, Keagan Weinstock, Aaron Herbst and Eli Vang

Green and Ethical Computing : Hagfors 367		Session Chair: Wenkai Guan
9:00	How GPUs Secretly Inflate AI's Carbon Footprint: GPU-aware Carbon Modeling Exposes Hidden Carbon Emissions	Youzhi Li and Wenkai Guan
9:30	Reducing Bias in AI: Ethical and Technical Approaches	Cheyenne Douglas

Multi-Agent Systems: Hagfors 373		Session Chair: Leigh Goetsch
9:00	Applications of Reinforcement Learning in Competitive Robotics	Andrew Needham, Evan Roegner, Joseph Beattie, Andy Dao and Leigh Goetsch
9:30	Enhancing Collaboration in Multi-Agent Environments with Attention-Based Actor-Critic Policies	Hugo Garrido-Lestache Belinchon and Jeremy Kedziora

Applications of ML: Hagfors 151		Session Chair: Abhishek Ghimire
9:00	Predicting YouTube Video View Counts: Analyzing the Impact of Visual Features and Metadata	Jalal Khalil and Abhishek Ghimire
9:30	Mobility Patterns and Urban Travel Behavior in the Twin Cities	Jalal Khalil and Aseia Nabi

Break: 10:00 – 10:30 Snacks in Hagfors Atrium

Technical Session 4: 10:30 – 11:30 - Saturday April 5

CS Education: Hagfors 351		Session Chair: Mark Fienup
10:30	Flipped Classroom Revisited	Mark Fienup
11:00	Lessons Learned from the Development of a Multi-Disciplinary Pre-capstone Course in Computing	Tomi Heimonen and Tim Krause

ML in Medical Imaging: Hagfors 352		Session Chair: Caleb Gray
10:30	Transformers, Tumors, and Time: Improving Multi-Modal Image Registration Using Cross-Modal Attention and Spatial Encoding	Caleb Gray, Alexander Neher, Sonia Grade, Bart Gebka, John Bukowy and Peter LaViolette
11:00	Beyond Boundaries: Building a General Latent Space for Medical Imaging with Self-Supervised Learning	Alexander Neher, Alexander Drobek, Alhagie Boye, Sonia Grade, Autumn Mizer, Caleb Gray and Bart Gebka

AI and Gaming: Hagfors 367		Session Chair: Zachary Warns
10:30	AI Plays Ultimate TicTacToe	Zachary Warns
11:00	Semi-supervised Weights for Action Generalization (SWAG)	Dylan Norquist

Ethics in AI: Hagfors 373		Session Chair: Benjamin Fine
10:30	An Overview of Gender and Political Biases in LLMs	Jared B. Jones, Naeem Seliya, Emily M. Hastings and Benjamin T. Fine
11:00	Generative AI: Emerging Policy, Innovation, and Debate	Caroline Cronk, Cheryn Lindsay and Isaac Wayne

Cybersecurity : Hagfors 151		Session Chair: T. Mohottalalage
10:30	Emerging Paradigms in IoT Security: A Comprehensive Survey of Malware, Threats, Vulnerabilities, and Countermeasures	Samuel Arne, Thivanka Mohottalalage and Akalanka Mailewa
11:00	Psyber-Security Revisited: A Comprehensive Literature Review on Integrating Psychological Principles into Cybersecurity	Thivanka Mohottalalage, Anushka Hewarathne and Akalanka Mailewa

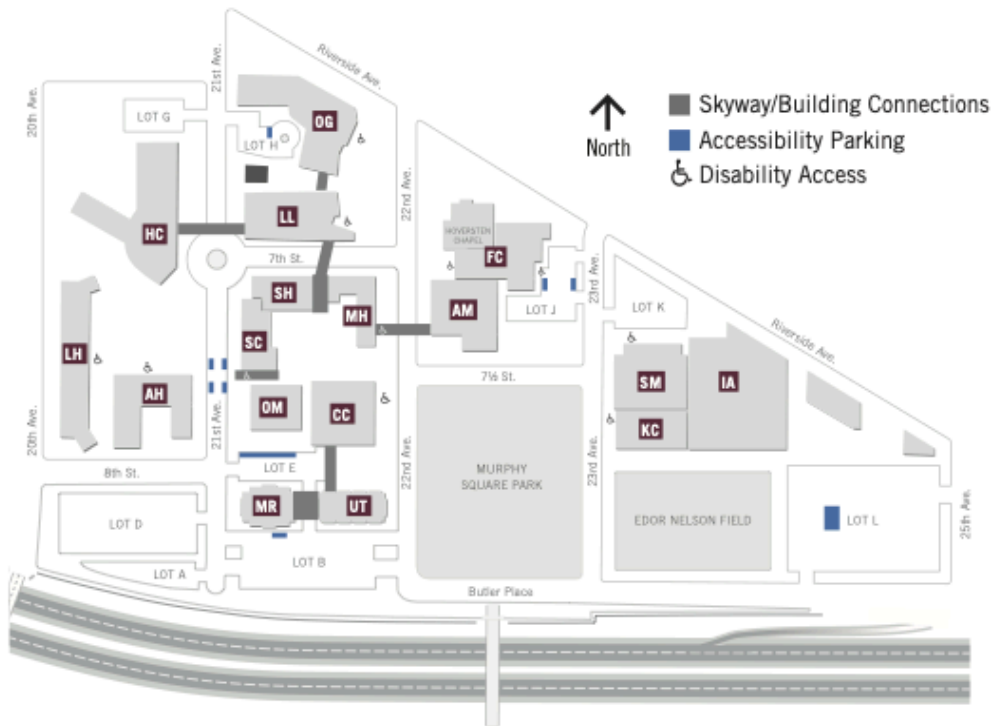| CS Education : Hagfors 301		Session Chair: Elena Machkasova
10:30	A beginner-friendly environment for exploring error messages in the Clojure programming language.	Tristan Kalvoda, Elena Machkasova, Jaydon Stanislowski and John Walbran

Keynote and Awards Ceremony
11:45 – 12:45 pm in Hagfors Center 150

Box Lunches and Departure
12:45 pm in Hagfors Center Atrium

AUGSBURG UNIVERSITY

CAMPUS MAP

2211 Riverside Avenue, Minneapolis, MN 55454
In case of an emergency call the Department of Public Safety at 612-330-1717.

North

■ Skyway/Building Connections
■ Accessibility Parking
♿ Disability Access

AM	Anderson Music Hall
AH	Anderson Residence Hall
CC	Christensen Center
FC	Foss Lobeck Miles Center
HC	Hagfors Center
IA	Ice Arena
KC	Kennedy Center
LL	Lindell Library
LH	Luther Residence Hall
MH	Memorial Hall
MR	Mortensen Residence Hall
OM	Old Main
OG	Oren Gateway Center
SC	Science Hall
SM	Si Melby Hall
SH	Sverdrup Hall
UT	Urness Tower

PARKING

A. Faculty/Staff Permits
B. Residential/Commuter Student
C. Commuter Student
D. Faculty/Staff Permits
E. Short-Term Visitor (3 hour max)
G. Faculty/Staff Permits
H. Reserved *
J. Reserved **
K. Commuter Student
L. General Permit Parking

OFF CAMPUS PARKING

M. Faculty/Staff Permits
    2001 Minnehaha Ave.
O. Faculty/Staff Permits
    2511 Franklin Ave. East

augsburg.edu/about/map

OFF CAMPUS PARKING ON FRANKLIN AVE.

LOT M   LOT O

*Not to scale or relation with campus map

ALL LOTS REQUIRE A PERMIT 24 HOURS A DAY, SEVEN DAYS A WEEK.

Updated December 12, 2017 8:39 AM

Park in Lot D or L: (no permits required in those lots)

Important Contacts:
mics2025@micsymposium.org
Augsburg University Public Safety at 612-330-1717

Nearby Restaurants:
Nabo - located in Oren Gateway Center (Friday until 6pm, closed Saturday)
Einstein's - located in Christensen Center (Friday until 8pm, Saturday 7:30am to 3pm)
Jimmy John's - located on Riverside just north of Hagfors (10:30am to 10pm)
Oasis Mediterranean Grill - located on Riverside & 20th just north and west of Hagfors (11am-8pm)