Thomas Cohn

Email:cohnt@umich.edu   Website:http://tommycohn.com

EDUCATION	**University of Michigan, Ann Arbor, USA**	2017 - Present

College of Engineering: Computer Science BSE (Expected May 2022)
College of LSA: Honors Mathematics BS (Expected May 2022)
Minors: Statistics, Music
GPA: 3.68/4.00

RESEARCH

Articles

- **Thomas Cohn**, Nikhil Devraj, Odest Chadwicke Jenkins, "Topologically-Informed Atlas Learning," *arXiv 2021.* Under revision at *Robotics and Automation: Letters*

- **Thomas Cohn**, Odest Chadwicke Jenkins, Karthik Desingh, Zhen Zeng, "TSBP: Tangent Space Belief Propagation for Manifold Learning," *Robotics and Automation: Letters 2020.*

Presentations

- "Topologically-Informed Atlas Learning," *University of Michigan Engineering Research Symposium 2021.* (Poster Presentation)

- "Coordinate Chart Particle Filter for Deformable Object Pose Estimation," *University of Michigan Engineering Research Symposium 2021.* (Poster Presentation)

- "TSBP: Tangent Space Belief Propagation for Manifold Learning," *International Conference on Intelligent Robots and Systems (IROS) 2020.* (Technical Talk)

- "TSBP: Tangent Space Belief Propagation for Manifold Learning," *University of Michigan Engineering Research Symposium 2019.* (Poster Presentation)

TEACHING

University of Michigan, Ann Arbor, Michigan, USA	Fall 2021

Instructor Aide, *Introduction to AI and Programming*

University of Michigan, Ann Arbor, Michigan, USA	Winter 2020

Instructor Aide, *Introduction to Microprocessor Computing Systems*

University of Michigan, Ann Arbor, Michigan, USA	Winter 2019

Instructor Aide, *Introduction to Microprocessor Computing Systems*

WORK EXPERIENCE

Laboratory for Progress, University of Michigan	Research Assistant
Ann Arbor, MI, USA	2016 - Present

Research Advisor: Professor Chad Jenkins

Robotics @ Marygrove, University of Michigan	Curriculum Designer
Ann Arbor, MI, USA	2021

Number DNA	Software Developer
Ann Arbor, MI, USA	2017 - 2018

Center for Healthcare Engineering and Patient Safety		Software Developer
Ann Arbor, MI, USA		2017
Green Ladder Technologies LLC		Embedded Systems Developer
Batavia, IL, USA		2015 - 2016

EXTRA-CURRICULAR ACTIVIES

Michigan Marching Band, University of Michigan	2017 - Present
Cymbal section leader 2019 - Present	
Michigan Hockey Pep Band, University of Michigan	2017 - Present
Michigan Percussion Chamber Ensemble, University of Michigan	2018 - Present

HONORS AND AWARDS

University of Michigan College of Engineering Honors Program (Computer Science)
University of Michigan College of Literature, Science, and the Arts Honors Program (Mathematics)
Tau Beta Pi Honor Society
Phi Kappa Phi Honor Society
Dean's List
University Honors
The Gloria Wille Bell and Carlos R. Bell Scholarship
Raab Family Scholarship
Regents Merit Scholarship
Wanda W. Lincoln Scholarship
Detroit News/CATCH Scholarship for Mathematics

RELEVANT COURSEWORK

Computer Science: Object-Oriented Programming, Data Structures and Algorithms, Autonomous Robotics, Computer Security, Machine Learning, Computer Vision, Computational Statistics

Mathematics: Multivariable Calculus, Differential Equations, Abstract Algebra, Probability Theory, Graph Theory, Linear Algebra, Numerical Methods, Topology, Differentiable Manifolds, Riemannian Geometry, Convex Optimization