

# Thomas Cohn

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EDUCATION	<b>University of Michigan, Ann Arbor, USA</b>	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	<b>Articles</b>	
	• <b>Thomas Cohn</b> , Nikhil Devraj, Odest Chadwicke Jenkins, “Topologically-Informed Atlas Learning,” <i>arXiv 2021</i> . Under revision at <i>Robotics and Automation: Letters</i>	
	• <b>Thomas Cohn</b> , Odest Chadwicke Jenkins, Karthik Desingh, Zhen Zeng, “TSBP: Tangent Space Belief Propagation for Manifold Learning,” <i>Robotics and Automation: Letters 2020</i> .	
	<b>Presentations</b>	
	• “Topologically-Informed Atlas Learning,” <i>University of Michigan Engineering Research Symposium Fall 2021</i> . (Poster Presentation) - <b>1st Place Award</b>	
	• “Coordinate Chart Particle Filter for Deformable Object Pose Estimation,” <i>University of Michigan Engineering Research Symposium Winter 2021</i> . (Poster Presentation)	
	• “TSBP: Tangent Space Belief Propagation for Manifold Learning,” <i>International Conference on Intelligent Robots and Systems (IROS) 2020</i> . (Technical Talk)	
	• “TSBP: Tangent Space Belief Propagation for Manifold Learning,” <i>University of Michigan Engineering Research Symposium 2019</i> . (Poster Presentation)	
	<b>TEACHING</b>	
	<b>University of Michigan</b> , Ann Arbor, Michigan, USA	Fall 2021
WORK EXPERIENCE	Instructor Aide, <i>Introduction to AI and Programming</i>	
	<b>University of Michigan</b> , Ann Arbor, Michigan, USA	Winter 2020
	Instructor Aide, <i>Introduction to Microprocessor Computing Systems</i>	
	<b>University of Michigan</b> , Ann Arbor, Michigan, USA	Winter 2019
	Instructor Aide, <i>Introduction to Microprocessor Computing Systems</i>	
	<b>Laboratory for Progress</b> , University of Michigan	Research Assistant
	Ann Arbor, MI, USA	2016 - Present
	Research Advisor: Professor Chad Jenkins	
	<b>Robotics @ Marygrove</b> , University of Michigan	Curriculum Designer
	Ann Arbor, MI, USA	2021
	<b>Number DNA</b>	Software Developer
	Ann Arbor, MI, USA	2017 - 2018

**Center for Healthcare Engineering and Patient Safety**  
Ann Arbor, MI, USA

Software Developer  
2017

**Green Ladder Technologies LLC**  
Batavia, IL, USA

Embedded Systems Developer  
2015 - 2016

**EXTRA-  
CURRICULAR  
ACTIVITIES**

**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  
COURSE-  
WORK**

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