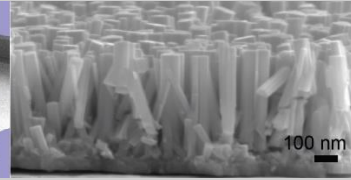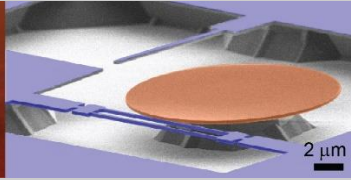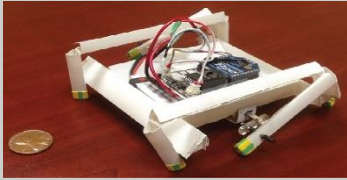# Computational and Data-Driven Methods for Next-Generation Engineering Design Tools: Towards Advanced Manufacturing
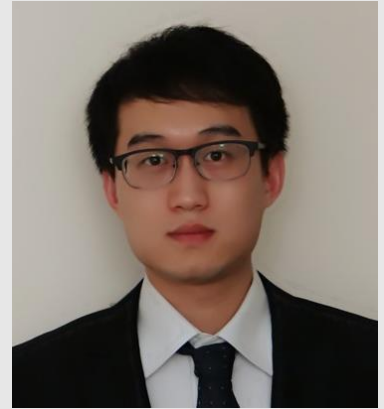
Dr. Jun Wang
Postdoctoral Associate of Mechanical Engineering
University of Maryland, College Park

11:00am -12:00 pm, Wednesday, May 12th
Zoom Link: https://wpi.zoom.us/j/93048844529

About the Speaker

Advanced manufacturing leverages innovative technologies to create existing and enables the creation of new products. A wide variety of technologies are being explored to boost productivity, increase innovation, and enhance quality in design and manufacturing processes, such as 3D modeling and simulation, 3D printing, big data, and software integration. I focus on underlying scientific questions at the intersections of advanced manufacturing, product design, and machine learning, with the goal of enabling generative design by bridging required interdisciplinary domains (e.g., computational geometry, mesh generation, FEA, design optimization, additive manufacturing, and AI) and exploring relevant technologies (e.g., lattice and foam structuring, topology optimization, complex part simulation, 3D printing processes, and neural networks). This presentation will cover related sets of techniques and research areas I have explored thus far and envision future research and education plans.

Dr. Jun Wang is a Postdoctoral Associate of Mechanical Engineering at the University of Maryland, College Park. He received his Ph.D. and M.S. in Mechanical Engineering from the University at Buffalo-SUNY and received his B.S. at Xi'an Jiaotong University, China. His research interests are Geometric Modeling, Simulation-Based Design, Data-Driven Design, and Generative Design. His current work is at the intersection of Machine Learning and Engineering Design. He has explored research areas in Computational Geometry, Design and Optimization, FEA, Additive Manufacturing, Machine Learning, and Computer Vision.