

NSF NANOSCALE SCIENCE AND ENGINEERING GRANTEES CONFERENCE:

NANO AND AI CONVERGENCE

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Bio: Dr. Cullinan is an Associate Professor in the Walker Department of Mechanical Engineering the University of Texas at Austin. Dr. Cullinan's research focuses on the development of novel nanomanufacturing systems and on finding ways to exploit nanoscale physical phenomena in order to improve existing macroscale devices and to create novel micro- and nanoscale devices for energy and sensing applications. His research interests include the design and development of nanomanufacturing processes and equipment, metrology of micro and nanomanufacturing, the application of nanoscale science in engineering, the engineering of thin films, nanotubes and nanowires, the manufacturing and assembly of nanostructured materials, and the design of micro/nanoscale machine elements for mechanical sensors and energy systems. Dr. Cullinan has received many awards for his research and teaching including the Outstanding Young Manufacturing Engineer Award from the Society of Manufacturing Engineers (2016), the Rising Star Award from the Sensors Expo and conference (2017), American Society for Precision Engineering Early Career Award (2021), ASME Kornel F. Ehmann Manufacturing Medal (2020), multiple Best Poster Awards from the American Society for Precision Engineering (2017, 2018), and the Outstanding Teaching by an Assistant Professor Award from the Department of Mechanical Engineering at the University of Texas at Austin (2017). Dr. Cullinan is also an associate editor for both Precision Engineering and the ASME Journal of Micro and Nanomanufacturing. In addition, he is the chair of the Micro and Nanotechnology Technical Leadership Committee for the American Society for Precision Engineering. Overall, Dr. Cullinan has published over 150 peer-reviewed journal papers, conference proceedings, book chapters, patents, and technical reports.