

Max M. Friestad

friesta2@illinois.edu
309.791.1329

Campus
711 W. Main #8
Urbana, IL 61801

Permanent
2 Windy Point
Rock Island, IL 61201

Education

Iowa State University, Ames, Iowa December 2019
B.S. in Mechanical Engineering 3.93 GPA

University of Illinois at Urbana-Champaign December 2024 (est.)
Ph.D. in Mechanical Engineering 4.00 GPA

Employment

University of Illinois at Urbana-Champaign – Graduate Research Assistant Spring 2020 – Present
Department of Mechanical Science and Engineering, Urbana, IL
Investigating the use of Artificial Neural Networks (ANNs) to predict and optimize heat transfer.

Iowa State University – Tutor for ME 436 – Heat Transfer Sept-Dec 2019
Academic Success Center, Ames, IA
Prepared lessons, example problems, and exam reviews for Mechanical Engineering students.

Rockwell Collins - Mechanical Co-op Jan – Aug 2018
Microelectronics Packaging, Cedar Rapids, IA

- Built, tested, and performed failure analysis on microelectronics packages in engineering development.
- Responsible for designing and conducting packaging experiments – patent pending.
- Designed stencils, fixtures, and other materials to support various manufacturing processes.
- Performed and designed experiments to explore potential design and process changes.
- Analyzed build data using Excel macros to define various performance metrics and automate wafer map generation.
- Managed technicians and sales reps to meet build and test deadlines.
- Communicated across departments to create and maintain a detailed part tracking system.

Iowa State University - Undergraduate Research Assistant Dec 2015 – Dec 2017
Metal Additive Manufacturing System (3D Printing), Ames, IA

- Extensive experience and knowledge in the Metal Additive Manufacturing (AM) process from design to production.
- Designed, modified, and cost-optimized parts utilizing SolidWorks FEA and 3DXpert.
 - Performed 3D CAD analysis on printed parts to analyze for and reduce / eliminate warpage in the future.
 - Utilized FEA iterations to reduce material cost and production time. (Resulted in the reduction of material cost by 65% and production time by 50% on one project.)
- Maintained, operated, and monitored the metal AM system to produce high-quality parts for industry.
 - Followed detailed procedures for system maintenance and data collection.
 - Examined laser sintering quality and surface finish via microscope imaging.
 - Operated 3-axis mills, a wire EDM, and other related lab equipment.
- Provided guided tours and outreach to industry professionals, students, and staff.

Other Activities

Graduate MechSE Society (2020 – Present)

Iowa State Solar Car Team (2016)

Skills/Qualifications

Inactive DoD Secret Security Clearance
Proficient in a wide range of modeling software

Stratasys Additive Manufacturing Certification

Honors

Inactive DoD Secret Security Clearance
Tau Beta Pi Member
Donald Kaser Memorial Award Scholarship

Stratasys Additive Manufacturing Certification
Iowa State ACE Scholarship
Marler Clark Science Foundation Scholarship