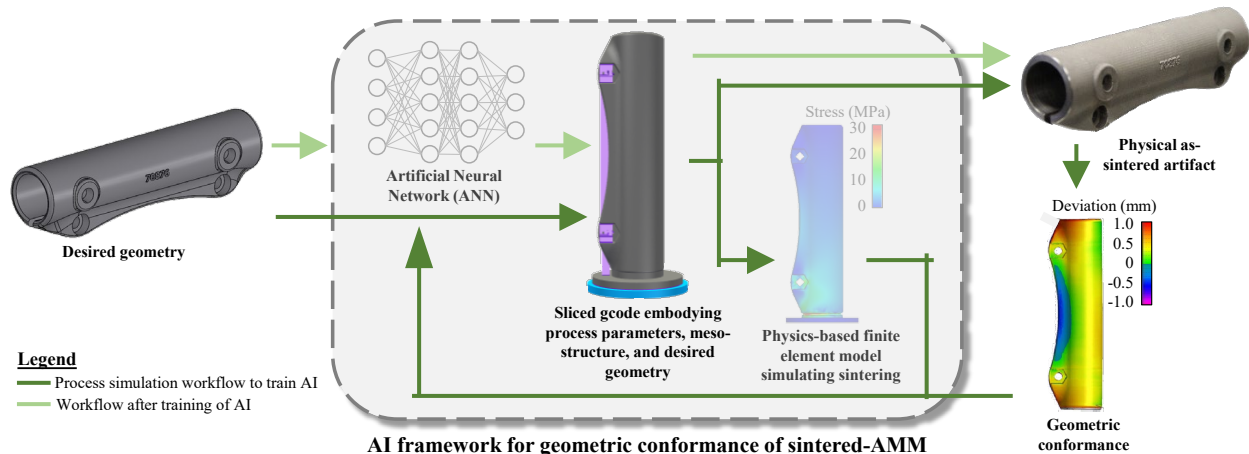


Seeking GRAs interested in Simulation, Additive Manufacturing of Metals (AMM), and Artificial Intelligence



The University of Maine's (UMaine's) Northeast Integrated Intelligent Manufacturing Lab (NIIM) and Center for Additive Manufacturing of Metals (CAMM) are seeking one or more than one Graduate Research Assistant (GRA) to conduct research in computational mechanics and additive manufacturing of metals. This work will directly support the deployment of artificial intelligence (AI) and explainable AI models being developed by NIIM. Applications will be reviewed upon receipt, and the research may begin as soon as possible. GRAs will receive a stipend and a full tuition waiver, as well as credit towards health insurance. The research will be conducted at UMaine's Orono, Maine campus.

General Responsibilities

- Develop and validate numerical tools to simulate sintering of metal particles for additive manufacturing of metal processes
- Support CAMM experimental studies by suggesting and simulating experiments
- Collaborate with NIIM to train artificial intelligence (AI) and explainable AI models to reduce the time to design new AMM parts
- Prepare and present findings via presentations, conference proceedings, and manuscripts

Qualifications

- Bachelor's degree in a relevant field (mechanical engineering, engineering physics, computer science, etc.)
- Programming experience in at least one programming language, preferably Python
- Preference for candidates having experience with: (1) Abaqus or other finite element analysis (FEA) software, (2) SolidWorks or other computer aided drafting (CAD) software, and (3) additive manufacturing

- Excellent written and oral communication skills

Who can apply?

Applicants must be admissible to the UMaine graduate degree program. Each funded GRA must be enrolled as a full-time graduate student. International applicants must be able to work on EAR99-controlled technologies and be able to obtain a student visa.

Degree options

- MS in Mechanical Engineering¹,
- PhD in Mechanical Engineering², or
- PhD in Material Science and Engineering³

Interested?

To apply, please email a brief statement of interest and your resume to Brett Ellis at brett.ellis@maine.edu. Review of applications will begin immediately, and will continue until the position(s) is(are) filled. Research will commence as soon as possible, ideally in Summer 2023 and no later than Fall 2023.

¹ <https://umaine.edu/graduate/program/mechanical-engineering/>

² <https://umaine.edu/graduate/program/mechanical-engineering/>

³ <https://umaine.edu/graduate/program/materials-science-engineering/>