

Internship: Lead a project focused on process efficiency and scrap rate reduction at a Minnesota horseshoe forging facility.

Company: St. Croix Forge – Forest Lake, MN

The Minnesota Technical Assistance Program (MnTAP) is seeking a junior or senior college student to lead a project focused on process efficiency and scrap rate reduction with St. Croix Forge in Forest Lake, MN. The intern will work with MnTAP and St. Croix Forge's staff to develop an understanding of the horseshoe forging processes that generates scrap at the facility, as well as the energy intensive robotic set up process. This information will be used to investigate opportunities to minimize the scrap rate, along with suggestions that minimize energy usage. The intern will quantify these opportunities, develop suggestions to increase efficiency, and outline plans for implementation.

JOB DUTIES:

As part of this project, you will be asked to complete the following tasks:

1. Develop a process map, detailing the forging process and establish the flow of raw materials and wastes.
2. Further analyze forging processes, and determine how scrap is created within the process.
3. Research methods to minimize set up time by reducing robotic programming steps.
4. Make recommendations for specific improvements based on research and testing that will result in scrap reduction, product loss reduction, and energy/water conservation.
5. Estimate impacts of provided recommendations, then prioritize suggested changes using simple payback methods for financial justification.
6. As appropriate, initiate implementation of approved process changes or develop plans for future implementation.
7. Summarize findings in a detailed report, including recommended procedures and vendor proposals along with an economic analysis and justification of changes.
8. Present findings to the company and at MnTAP-hosted public presentation events.

As an intern, you will work at the company and report back to MnTAP. The position is full time, 40 hours per week, for three months to start after the conclusion of spring semester or quarter. Pay is \$14/hour, with a lump sum stipend of \$1,000 upon completion of the project deliverables: a final report and presentations. Cumulatively, this equates to \$16.00/hour when averaged over the project. Candidates must pass a background check.

QUALIFICATIONS:

- Cumulative GPA of at least 3.0
- Good oral & written communication skills
- A technical academic background
- Troubleshooting skills
- Self-motivated
- Excel and other software skills
- Appropriate majors: *Engineering, environmental or physical sciences and others as applicable*

TO APPLY:

Apply online at:

www.mntap.umn.edu/intern/student_apply.htm

Remember to submit your application form, cover letter, resume, and unofficial transcript.

Applications can be addressed to:

Nathan Landwehr, Intern Program Administrator
200 Oak Street SE, Suite 350-1

Minneapolis, MN 55455 • landwehr@umn.edu

MNTAP IS THE HIRING BODY: DO NOT CONTACT THE COMPANY