Chase Hilgeman

+1 (605) 201-1573 | chase.hilgeman@mines.sdsmt.edu | Rapid City, SD | portfolio.chasehilgeman.com

Summary

Junior mechanical engineering student with hands-on co-op experience and over two years of CAD utilization. Proficient in PTC Creo, Autodesk Inventor, and AutoCAD, with basic programming skills in Python and MATLAB. Eager to apply practical design, prototyping, and technical problem-solving skills to a summer internship.

Work Experience

Daktronics, Inc. | Sioux Falls, SD
Manufacturing / Process Engineering Co-op | 01/2026 - 08/2026

- Utilized AutoCAD to create, update, and manage layouts for factory areas
- Implemented lean manufacturing principles to optimize production processes
- Conducted 3D modeling in PTC Creo to enhance operator safety and ergonomics
- Worked hands-on to build, test, and modify prototypes and floor equipment

Hy-Vee, Inc. | Sioux Falls, South Dakota
Dairy Clerk | 07/2021 - Present

- Executed unloading of freight, organized products, and managed inventory and invoices
- Restocked merchandise and removed expired items to maintain product quality
- Delivered exceptional customer service while adhering to food safety guidelines
- Assumed managerial responsibilities for several weeks during summer 2024

Education

South Dakota School of Mines and Technology | Rapid City, South Dakota
B.S. Mechanical Engineering | 05/2028
Minors: Aerospace Engineering and Systems Engineering

Projects

Daktronics Project - Harness Layout Optimization

- Worked directly on the assembly floor alongside operators to learn the process firsthand
- Updated existing layouts in AutoCAD to establish an accurate baseline before starting new designs
- Developed and drew new factory floor layouts in AutoCAD focused on increasing throughput, reducing excess motion, and minimizing operator wait times
- Pitched the final layout proposals to the engineering group, area supervisors, and factory manager

ME210 Project - Butterfly Knife

- Designed a butterfly knife using Autodesk Inventor
- Created detailed component drawings and utilized 3D printing for prototypes
- Manufactured final product with aluminum and steel using mill, bandsaw, and CNC machinery

ME265 Project - Airsoft Flag Device

- Learned more about the prototyping and design process and how to incorporate public feedback into designs
- Utilized an arduino and learned the basics of C++ code
- Machined a faceplate utilizing a plasma cutter

Activities

- Participate in the South Dakota Mines intramural football league during the fall
- A trainee of the South Dakota Mines Baja team
- Built and currently maintain a Linux home media server for automated file management and remote access