

HENRY HANSEN

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Professional Summary

Experienced mechanical engineer with a B.S. from Carnegie Mellon. I have 2 years of work experience as a mechanical engineer along with manufacturing experience. I have working CAD experience including creating parts, assemblies, drawings, and Bills of Materials.

Education

Carnegie Mellon University | Pittsburgh, PA | May 2022

B.S. Mechanical Engineering, Minor in Japanese, Minor in Art

- SafeKnock Doorknob
 - Designed a doorknob that would unlock when given a specific knocking combination.
 - Utilized SOLIDWORKS to design a gear mechanism and a laser cutter to create individual gears.
 - Final prototype won CMU Shark Tank 2021 award.
- 3D Printer Case
 - Utilized SOLIDWORKS to design an enclosure for a 3D printer to increase safety for visually impaired people.

Experience

MSA Safety | Pittsburgh, PA | January 2026 – Present

Drafter

- Created and edited CAD drawings using SOLIDWORKS, CREO, Draftsight, and AutoCAD.
- Utilized SOLIDWORKS PDM and CREO WINDCHILL to update parts, assemblies, and drawings.

Hellbender | Pittsburgh, PA | March 2025 – April 2025

Electronics Assembly Technician

- Collaborated with teammates to produce components and assemblies for Hivemapper Dashcams, including antenna, cameras, and circuit board assembly.

L&T Technology Services | Peoria, IL | July 2022 – June 2024

Associate Mechanical Engineer

- Raytheon ITAR – Collins SVN (PDM)
 - Collaborated with partner vendor to generate new part drawings with Bills of Materials using Siemens NX 12.
 - Utilized TortoiseSVN to update parts, assemblies, and drawings for the partner vendor.
- CAT Large Mining Trucks – CAT D11 XE
 - Utilized CREO to update CAT D11 XE components including mudflap design and creating part drawings.
 - Utilized CREO Simulate to test various ladder designs for the CAT D11 XE.

Carnegie Mellon University | Pittsburgh, PA | August 2019 – May 2022

Information Desk Attendant

- Communicated essential information to visitors relating to the University, its offices, and campus layout and assisted in conducting the setup and smooth operation of special functions and events.

Skills

- **CAD Software:** SOLIDWORKS, CREO, Siemens NX 12, Draftsight, AutoCAD, Autodesk Inventor, Fusion 360
- **Programming Languages:** MATLAB, Python, Arduino IDE
- **Microsoft Suite:** Excel, Outlook, Word, PowerPoint
- **Manufacturing Processes:** Laser Cutting, Machining, Welding, Woodworking, 3D Printing
- **Creative Software:** Maya, Blender, Clip Studio Paint, Gimp, Premiere Pro, Photoshop
- **Certifications:** Soldering Safety Training, Hand and Power Tool Safety Training, PPE, Fire Extinguisher Use Part 1

Volunteer Experience

Co-Instructor | USA Karate | July 2013 – July 2022 | July 2024 – Present

Activity Assistant | Charles Morris Nursing Home | July 2016 – March 2020