

# JASON HESS

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## *Career Aspiration*

Seeking to obtain an internship or Co-Op in the field of Mechanical Engineering for the summer of 2023

## *Education*

Youngstown State University (YSU) | Youngstown, OH  
College of Science, Technology, Engineering, and Mathematics (STEM)  
Rayen School of Engineering – ABET Accredited  
**B.E. in Mechanical Engineering**  
Minor: Mathematics

Expected Graduation: May 2024  
Overall GPA (4.00 Scale): 3.88

## *Relevant Coursework*

Fluid Dynamics, Machine Design, Heat Transfer, Dynamic System Modeling, Machine Design Lab, Fluid Dynamics Lab

## *Work Experience*

- Raytheon Technologies Collins Aerospace Manufacturing Engineering Inter | Minneapolis, MN May 2023-August 2023
- Summer 2023 intern within the manufacturing team of aviation components
  - Commercial and military aviation
- ASTM International Washington Internships for Students of Engineering Intern | Washington, DC June 2022-October 2022
- Experienced how engineers can contribute to the legislative process, regulatory decision-making, and science and technology policy
  - Research reported and presented on space policy related to orbital debris solutions across the federal government.
  - Interviewed experts from NGOs, ASTM, NASA, DOS, NOAA, DOD, and Congress to draft a public policy paper and recommendations
- YSU Rayen School of Engineering Teaching Assistant January 2022-Present
- Assist first-year engineering students in engineering computing with MatLab and Excel. Grades and guides students through assignments.
  - Hold office hours for six hours a week where students can get help on homework and projects.
- YSU Rayen School of Engineering Undergraduate Research Assistant July 2021-Present
- Design and implement a development program for first-year engineers
  - Liaison between students and faculty. Assist in programmatic planning and organization of events and resources.

## *Significant Projects*

- YSU Offroad Vehicle Baja Team October 2022-Present
- Currently researching electrical system upgrades and components necessary to power subsystems.
  - Member of the business presentation team
- Crane Boom Design Project, YSU October 2022-December 2022
- Worked as a team to design a crane boom given dimension criteria and loading
  - Utilized stress calculations, Solidworks, and Ansys to verify design results
- YSU Rayen School of Engineering Engineers Week Coordinator February 2022-Present
- Coordinates a department-wide engineers' week celebration with faculty and students. Collaborates with six engineering major organizations to plan five different engineering challenge competitions, seven social/professional events, and a food drive for the Mahoning Valley Rescue Mission. Developed a custom website that displays information and shows current leader progress. Contacted and received over \$10,000 worth of sponsorships from various companies.
  - Organized an Industry Forum event with six local companies to better inform students about the benefits of coops and internships. Coordinated prizes, sign-ups, marketing, sponsorships, supplies ordering, and point tracking.
- Pennsylvania Junior Academy of Science 2015-2020
- Completed in-depth scientific research in several fields and presented it to a panel of judges. Received nine 1<sup>st</sup> awards and four perfect scores.
  - Named the Outstanding Junior Presenter during my 4<sup>th</sup> year participating and received a \$12,000 scholarship for research on how temperature affects impact attenuation, specifically related to football helmets.

## *Leadership Experience*

- Varsity Assistant Football Coach | New Wilmington, PA June 2020-Present
- Over 450 volunteer hours per season | Coached in one PA state championship and two district championships
  - Assistant to the head coach, running backs, defensive backs, junior varsity
  - Coached and developed varsity level players. Responsible for in-game adjustments and communication.
  - Assist in all operations of the varsity football program. Coordinate video/game-day operations, travel, and logistics. Developed processes to manage personnel, equipment purchases, and distribution. Created spreadsheets to coordinate practice and post-game analysis. Established communication with parents and media outlets. Coordinated salute to service night to honor 20 veterans.

## *Student Organizations*

- YSU American Society of Mechanical Engineers | Officer-Secretary 2022-Present  
YSU Tau Beta Pi | President Elect 2022-Present