JACOB DAHLHAUSER

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EDUCATION

The University of Tennessee, Knoxville, Tickle College of Engineering & Herbert College of Agriculture
Bachelor of Science in Biosystems Engineering — Graduation: May 2027
Major: *Biosystems Engineering*

PROFESSIONAL EXPERIENCE

TN Made — Oak RIdge, TN
Research Lab Assistant — *January 2026 to Present*

- Operated 3 and 5 axis milling machines, Lathes, and a Wire EDM
- Assisted in research regarding metal additive manufacturing processes
- Worked alongside other engineers to make the processes field repeatable

Oak Ridge National Laboratory/University of Tennessee — Oak Ridge, TN
Research Lab Assistant — *June 2023 to June 2025*

- Operated mechanical tests on various ceramic materials
- Analyzed data and created visual forms for presentations
- Utilized several characterization machines including Pycnometer, Instron, X-ray Diffraction, etc.

INVOLVEMENT

Student Space Technology Association — Knoxville, Tennessee
Organization Member — *August 2025 to Present*

- Contributed to two major club engineering projects including: a NASA Lunabotics competition, and a weather balloon design project

American Society of Agricultural and Biological Engineers — Knoxville, Tennessee
Organization Member — *August 2024 to Present*

- Participated in weekly meetings and community projects while networking with other Agricultural and Biological engineers

PROJECTS

NASA Lunabotics

- Aided in the mechanical design decisions and CAD assembly for lunar excavation robot

NASA SSEP International Space Station Research Project

- Wrote and experimented a research project for plant life in microgravity aboard the ISS

USDA Agricultural Robotics competition

- Contributed to the mechanical design, CAD, and construction of a tree nursery robot

PUBLICATION

A. A. Wereszczak, M. D. Loveday, M. M. Sereno, J. M. Dahlhauser, N. A. Rod, S. C. Hyde, S. J. Kotze, E. F. Ghezawi, K. V. Jones, and B. S. Cowell, " (U) "SeS Analysis" for Effective Portrayal of Bulk Powder Compaction and Its Relationship with the Combination of Network Establishment, Intrinsic Material Deformability, and Initial Morphology," ORNL/NTS-FY24/XX, May 2024.

SKILLS

- Proficient in AutoCAD, Solidworks, Fusion, and Excel
- Hands on mechanical experience