

Ben Salak

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Education

The University of Alabama, GPA: 3.66 / 4.0

Master of Science in Aerospace and Engineering Mechanics

Culminating Research Experience: planetary descent guidance

Online

August 2023 – May 2026

Rose-Hulman Institute of Technology, magna cum laude, GPA: 3.72 / 4.0

Bachelor of Science in Mechanical Engineering

Dynamics and Controls Concentration

Terre Haute, IN

August 2018 – November 2022

Experience

Raytheon Technologies

Guidance, Navigation, and Control (GNC) Engineer II

Acting GNC Cross Product Team Lead (CPTL)

GNC Engineer I

Tucson, AZ

July 2025 – August 2025

March 2024 – March 2025

April 2023 – July 2025

Altec

Controls Developer Intern

- Built firmware in MATLAB Simulink to implement 8 next gen aerial unit control features and validated firmware with software and hardware in-the-loop testing using CanKing and CANape

St. Joseph, MO

June 2022 – August 2022

Rose-Hulman Institute of Technology

Research Assistant, open-source liquid chromatography

- Codeveloped and presented to faculty a low-cost (under \$300) force amplification linkage by using parts from low-cost scales and 3D-printed and laser-cut parts

Terre Haute, IN

September 2019 – December 2021

Daifuku Wynright

Controls Engineering Intern

- Collaborated with 6 controls engineers to commission a 1.6 million sq. ft. advanced PLC conveyor sorting system

Bolingbrook, IL

June 2021 – August 2021

Collins Aerospace

Engine Systems Intern

- Reprogrammed Excel-based design tools with MATLAB software, improving analysis speed by a factor of 12

Rockford, IL

March 2020 – August 2020

Additional

Skills: Kalman filtering, Monte Carlo analysis, navigation and target tracking, high performance grid computing, Linux, 3D dynamics, orbital mechanics, state space and PID control, bond graph, robotic/linkage kinematics

Programs: MATLAB, Simulink, C++, Python, Java, Git, Arduino IDE, SOLIDWORKS, Orbital STK

Languages: Fluent in French

Awards: Two Raytheon Achievement Awards, Collins Aerospace Competitive Excellence Award, National French Contest Gold Medalist

Certifications: FE/EIT Exam, OSHA 10-hour Construction Safety and Health

Leadership: Acting Raytheon GNC Cross Product Team Lead (CPTL), Rose-Hulman Bonfire Committee member, Rose-Hulman student government representative

Community Involvement: Community Food Bank of Southern Arizona, Habitat for Humanity