

VAUGHN BERHOFF

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EDUCATION

Georgia Institute of Technology - B.S. in Mechanical Engineering, Minor in Industrial Design

Atlanta, GA

GPA: 3.63/4.00, Dean's List: Fall 2024 - Present

May 2028

Relevant Coursework: Bio-inspired Design, System Dynamics, Mechanics of Deformable Bodies, Thermodynamics, Visual Design

PROFESSIONAL EXPERIENCE

Milwaukee Tool

Milwaukee, WI

Advanced Manufacturing Mechanical Design Intern

June 2026 - August 2026

- Designed and manufactured a pneumatic pick-and-place system to store, locate, and precisely position small components
- Improved a current accessory's manufacturing **throughput by 80%**, while reducing safety concerns
- Worked hands-on with machinists to optimize part designs for manufacturability and translated into detailed CAD drawings

Shurhold Industries

Palm City, FL

Factory Engineer Intern

May 2025 - August 2025

- Engineered a brush bumper installation mechanism, **decreasing assembly time by 50%**: [Design Documents](#)
- Streamlined production and reduced manual labor by automating the bucket lid assembly line
- Generated technical drawings in SolidWorks to support documentation and reverse engineering of legacy parts
- Coordinated with vendors: machine shop, plastics manufacturer, and welding facility to source custom components

Bikes Plus

Palm City, FL

Lead Mechanic

2020 - 2023

- Repaired, maintained, and built bikes of all types, including their drivetrain, suspension, braking systems, and custom fittings
- Developed strong customer service skills, respecting individual needs, contributing to increased returning customer rates

LEADERSHIP

Georgia Tech. Invention Studio

May 2025 - Present

Prototyping Instructor (PI)

- Trained across 7+ fabrication areas: Metal Shop, CNC, Waterjet, Wood Shop, Laser Cutting, 3D Printing, and Electronics
- Supervise and support student users in safe tool operation, material selection, and **DFM strategies**

Theme Park Engineering and Design Club (TPED)

February 2025 - Present

Cruise Line Task Group Volunteer

- Assisted Heather Tolman in synthesizing USTOA, ETOA, and Insurance guidelines for cruise excursion safety
- Attended the American Society for Testing and Materials (ASTM) F24 Amusement Rides and Devices conference
- Participated in ICON Park Free Fall case study failure, identifying mechanical oversights and safety failures

Outdoor Recreation Georgia Tech. (ORGT)

January 2025 - Present

Whitewater Kayaking Instructor

- Co-facilitated safety briefings and logistical planning for off-campus weekend trips, leading groups of 6 downriver
- Quick decision-making in high-risk scenarios on the river

PROJECTS

BoneYard - [Demo Video](#)

Drafting, Cardboard Models, SolidWorks

- Designed and built a spooky-themed coin-activated pinball machine with a functional multi-ball and tri-flipper system
- Utilized rapid prototyping to develop 2D sketch to 3D model with over 90% recycled cardboard construction
- Integrated mechanical linkages, themed obstacles, and game flow logic to create an interactive experience

Cloudjumper - [Competition Video](#)

Rapid Prototyping Fabrication

- Designed and fabricated a fully autonomous competition robot integrating five mechanical subsystems
- Iteratively tested mechanisms for telescoping actuation, object sorting, deployment, and drivetrain motion
- Ranked top 12 out of 70 teams, with the **highest single round score in the competition**

SKILLS

Tools & Software: Solidworks, Ansys, Matlab, Laser Cutting, Wood & Metal fabrication, Waterjet, 3D Printing (FDM/SLA), CNC Machining, Soldering, Vinyl Cutting, Hand/Power Tools, cardboard rapid prototyping

Engineering Concepts: CAD Modeling, Technical Drawing, Product R&D, Assembly lines, Tolerances, Materials Selection

Soft skills: Communication, Teamwork, Positivity, Peer Instruction, Leadership, Project Planning, Customer Interaction, Safety

Certification: SolidWorks (CSWA Certified), Fusion 360 certification, Advanced Wilderness First Aid (AWFA)