

Graham Booton

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Mechanical engineering undergraduate with CNC machining, metrology, FEA, and leadership experience, seeking a summer 2027 internship to contribute to process improvements and design innovation in an automotive, motorsports, or advanced manufacturing environment.

Education

Iowa State University – BS in Mechanical Engineering 2024 - 2028

- 3.57 GPA | 2x Dean's List | German Language and Cultures for Professionals (LCP) minor

Engineering Experience

Manufacturing Engineering Intern, BorgWarner – Kokomo, IN May 2026 - August 2026

- Designed an LVDT-based inspection station for dual-sided thickness measurement with a target repeatability of $5\mu\text{m}$, replacing a manual nine-point micrometer inspection and decreasing cycle time by an estimated 70%, eliminating 5 labor hours per week
- Supported production of prototype Viper power switches for next-gen EV inverters by operating SMT pick-and-place machinery and verifying quality through X-ray, ultrasound, and microscope inspection

Suspension Subteam Member, Formula SAE at Iowa State – Ames, IA September 2025 - Present

- Designed first universal clevis to connect A-arms to the chassis, reducing unique part numbers from 7 to 1, and decreasing manufacturing time by 4 hours, validated by 16 vehicle-dynamics-derived load cases in Ansys Mechanical FEA
- Created technical documentation for competition RFQ, including engineering drawings

Manufacturing Intern, SMW Autoblok – Wheeling, IL June 2024 - July 2024

- Gained CMM expertise independently and trained staff to perform in-process inspections on the shop floor, eliminating dependence on an inspection lab with a 2-8 hour queue
- Set up and operated Mazak and DMG Mori 5-axis machining centers

CNC Operator, Prince Industries – Carol Stream, IL Summer 2022 and 2023

- Configured and operated mill/turn, Swiss, and vertical CNC machines
- Performed in-process and final part inspections to ensure compliance with ISO standards
- Worked in metrology lab to evaluate rejected parts, and performed CNC rework to meet client specifications

Leadership

Vice President of Finance, Iowa State Triangle Fraternity – Ames, IA January 2026 - Present

- Collected \$550,000 in accounts receivable for a 50-tenant commercial property and a 110 member fraternity
- Allocated grant funds in compliance with 501(c)(3) regulations

Marketing Director, Iowa State SAE Executive Cabinet – Ames, IA August 2026 - Present

- Elected by peers to coordinate outreach for SAE Formula, Baja, Aero, and Clean Snowmobile teams

Philanthropy Chair, Iowa State Triangle Fraternity – Ames, IA July 2025 - December 2025

- Planned an event that raised over \$4,700 for the Jeremy Onyango Memorial Scholarship

Skills

Technical: 5-axis CNC machining, CMM operation, metrology, Surface-mount technology, quality inspection, 3D printing, Microsoft Office

CAD: SolidWorks, Autodesk Inventor, Ansys Discovery & Spaceclaim, Fusion 360 CAD & CAM

Simulation Software: Ansys Mechanical, Solidworks Analysis

German: High B1, limited working proficiency