

# Ryley Butler

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## Education

### University of Virginia

B.S. in Mechanical Engineering, Material Science Minor

- GPA: 3.93, Dean's List

Charlottesville, VA

Aug 2022 - Present

## Experience

### Toyota Material Handling

Quality Engineering Intern

Columbus, IN

May 2025 - Aug 2025

- Identified and tracked warranty claim issues for forklift internal combustion engine fuel system components using root cause analysis
- Developed manufacturing process changes with in-house and supplier production teams to improve component quality
- Created electrical harness quality training tools for production line employees, providing increased visibility of frequent in-house defects

### ESAB

Gas Equipment Engineering Intern

Denton, TX

Jun 2024 - Aug 2024

- Optimized spare parts catalog by developing repair kits for gas regulators, making a 45% reduction in SKU and streamlining the replacement process for customers
- Made engineering drawings for replacement kits using PTC Creo and collaborated with global cross-functional teams to prepare kits for production
- Assisted with new product development by creating drawings of test apparatus' for manufacturing and modifying components based on product benchmarking and validation

### Virginia Motorsports, Formula SAE

President

Charlottesville, VA

June 2025 - Present

- Develop and execute long-term goals for improving leadership structure, alumni and sponsor relations, and member retention through outreach initiatives
- Manage funding applications and submissions for large grants and sponsorships for a yearly budget of over \$56,000
- Maintain effective communication with university administration, alumni, and sponsors to maintain and improve club image and relations

Powertrain Team Lead

May 2023 - Present

- Collaborate with a diverse team of technical leads in maintaining strict timelines, setting goals, and coordinating design and manufacturing efforts
- Present formal preliminary and critical design reviews to teammates, alumni, and engineering faculty
- Organize and lead more than 20 members each semester throughout weekly meetings and project deadlines
- Design, manufacture, and integrate a drivetrain capable of withstanding substantial levels of torque while prioritizing lightweight, strong, and manufacturable components
- Design and optimize cooling system architecture to ensure proper performance under extreme racing conditions
- Manufacture components using various advanced methods including manual machining, CNC milling, and TIG welding
- Experienced in internal combustion engine maintenance and performance, including diagnostics, rebuilding, and precision measurement

Powertrain Member

Aug 2022 - May 2023

- Analyzed performance goals using design matrices to validate drivetrain system architecture
- Designed a lightweight aluminum final drive sprocket and sprocket carrier to successfully implement a chain-driven limited slip differential
- Performed FEA simulations of components under worst-case loads in Autodesk Fusion and validated results through on-car testing

Vice President of Member Involvement

May 2023 - Jun 2024

- Led the planning, organization, and hosting of member recruitment events resulting in our teams largest retention of new members
- Developed and secured approval for a budget of \$2500+, then effectively managed and allocated these resources

### Walmart

Online Pickup and Delivery Employee

Denton, TX

May 2020 - Jan 2024

- Coordinated a team of 10+ fellow employees to optimize order fulfillment process, enhancing efficiency and teamwork in a fast-paced environment
- Trained and guided new team members across various tasks, contributing to team cohesion

## Skills

**Software** Fusion 360, SolidWorks (CSWA Certified), PTC Creo Parametric, PTC Windchill, Python, MATLAB, Julia, PASCO, Microsoft Applications, Embedded Microcontroller Programming

**Manufacturing** Waterjet, CNC Milling, Manual Machining, TIG Welding, Soldering, 3D Printing Prototyping, OSHA 30 General Industry