Tyler Griffith, EIT

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A life-long learner exploring gas dynamics, vehicle design, and simulation software.

Education 3.80 GPA

2021 – 2025 **B.S. Case Western Reserve University** *Aerospace Engineering + Physics Minor*

Skills

Coding MatLab, LaTeX, Java, R

Software SolidWorks, Ansys Fluent/Zemax, Abaqus, Mastercam, VCarve, Bambu Studio, Cura

Misc. Teaching, Leadership, Teamwork, Training, Spreadsheets, CONOPS Diagrams, Woodworking

Experience

2025 **Teaching Assistant,** *CWRU, Aero/Gas Dynamics*
Conducted the lecture on Conformal Mapping and the Magnus Effect as predicted in Potential Flow. Graded assignments, held weekly office hours, and led review sessions before each exam.

22 – 25 **President & Founder,** *Case Motorcycle Club*
Established a funded organization for the mechanics, maintenance, and practical riding of motorbikes.
2023: Acquired a 1974 Triumph Bonneville in inoperative condition and a membership to a DIY Garage.
2025: Elected the next generation of club execs and kicked off our inaugural Car & Bike Show.

22 – 24 **Supplemental Instructor,** *Physics Department, CWRU*
Delivered two 90-minute small group sessions each week for Electricity & Magnetism and Modern Physics. Taught the course material in an individually tailored format with original worksheets and study guides.

2023 **Fabrication Technician,** *Sears Think[box], CWRU*
Trained users on the machinery on the fabrication floor of the university maker-space. Helped users with personal and academic projects. Performed regular maintenance in the machine shop.

2022 **Research Assistant,** *CWRU*
Collaborated with STEMpower to develop curricula and lab equipment for schools in Sub-Saharan Africa. Key Achievement: Pedagogical bio-mechanical arm and leg models to interactively demonstrate the principles of forces and moments in the context of how we efficiently actuate our own bodies.

Key Academic Projects

2025 **Design of Crewed Mission to Deimos,** *Aerodesign Capstone, CWRU*
Led the design, analysis, and presentation of the proposed interplanetary nuclear thermal rocket engine system. Created integrated trade studies. Produced trajectory maps, systems CONOPS, and animations for the team. Contributed heavily to the ideation, conceptual sketching, and team dynamics of this 14-member project.

2024 **Flow Generation & Control Research,** *Senior Project, CWRU*
Designed and prototyped two controlled airflow devices for input to reedless wind instruments.

Certificates, Awards, & Memberships

2025 **The Robert and Leona Garwin Prize** to a student who has demonstrated theoretical scientific ability with experimental competence and inventive talent

2022-Present **CSWA Certified SOLIDWORKS Associate in Mechanical Design**, 3DEXPERIENCE

2024-Present **CSWP Certified SOLIDWORKS Professional in Mechanical Design**, 3DEXPERIENCE

2024-Present **Tau Beta Pi,** *Engineering Honors Society*

2021-2025 **Dean's High Honors**, *CWRU Dean's List*

2021 **Emerging Leaders Program Graduate**, *CWRU Emerging Leaders Program*