

Maximus Shurr

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Objective

"I lead cross-discipline engineering teams by combining mechanical design, automation, and software to build manufacturable, data-driven products and production systems. Seeking opportunities where CAD is a tool — not the goal — to deliver automated workflows, validated prototypes, and scalable product outcomes."

Education

Purdue University

May 2026

Current GPA: 3.9

- Degree: Honors Mechanical Engineering, BSME
- Minors: Organizational Leadership & Artificial Intelligence (AI) / Machine Learning (ML)
- Favorite Project: Teaching Human & AI collaboration on ClarityDaily.com

Experience

R&D Automation Engineer Co-op | Corteva, Indianapolis Headquarters Jan 2025 – July 2025

- Responsible engineer for a water-tight granule observation rig; applied first-principles design to meet safety and materials constraints.
- Built a Linux-based IoT data acquisition device and Python interface — halved temperature data acquisition costs while ensuring material compatibility and safety.
- Converted a manual workflow into a Django data-historian app with Git + CI/CD, enabling continuous scientist feedback and automated data capture.

Makerspace Startup Intern | Sibley Center, South Bend IN

May 2024 – Jul 2024

- Led product design for a consumer fishing-rod caddy: simplified BOM and reduced part count by ~80%, improving durability and manufacturability.
- Designed and delivered a 9-day robotics & CS summer camp: wrote curriculum, trained instructors, and produced instructional media.

Research Assistant | LeafSpec R&D, Purdue

May 2023 – Nov 2023

- Engineered plant-phenotyping robots using ROS + Python; optimized actuators and mechanical designs for Purdue's automated greenhouse.
- Designed 3D-printable handheld scanners (SolidWorks) and cut assembly time by ~25%. Presented research briefings to stakeholders.
- Briefed U.S. Senators and their staffers about doctoral research in automated sensing.

3D Print Automation | Hughes Orthodontics, Indianapolis

Dec 2020 – Nov 2023

- Automated end-to-end 3D printing workflows for personalized retainers: integrated mechanical design with Python processing to save \$5,000+ per year and cut production time by 50%.

Founder – YouTube Channel and STEAM Kits | Mechanical Max LLC

Jul 2020 – Present

- Built and led a cross-disciplinary team to produce STEAM curricula, video content, and consulting for design-for-manufacturing, prototyped PCBs for rocketry and data collection.
- Now building in 16Tech's Ignition collegiate founders startup incubator for 3D printing accessibility.

Skills & Abilities

Mechanical &

CAD

SolidWorks, FEA, DFM, rapid prototyping, 3D printing, laser cutting

Automation & Embedded

Linux, Raspberry Pi, PLCs, Arduino, circuit design, PCBs, IoT

Software &

Data

Python (automation, scripting), Django, Git, CI/CD, Next.js, HTML/CSS/JS, basic Unity/C++

Leadership & Communication

Business Problem Definition, Cross-Functional Collaboration