Daniel Akinwale

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SPECIALIZED SKILLS

Technical Skills: CAD (SolidWorks, Fusion360, AutoCAD), FEA (ANSYS Workbench), Programming **(**MATLAB, Python, Java, JavaScript, SQL, Arduino, G-Code), Manufacturing (CNC HAAS, Mill, Lathe, Waterjet, Laser Cutter, Benchtop CNC, Composites Manufacturing), 3D Printing (FFF/SLA), GD&T, DFMA, Microsoft Excel

PROFESSIONAL EXPERIENCE

AFRL Graduate Student Researcher, *Aerospace ADVERSARY Laboratory*, Ithaca NY, **March 2026–Present**

- Own end-to-end design of autonomous space infrastructure systems; driving architecture decisions from concept through hardware integration and mission delivery
- Lead systems architecture for cube satellite platforms including CAD, 3D-printed structures, Arduino avionics, and laser communication subsystems across multiple lab missions

MLS Crew Manager, *Emerson Manufacturing Lab*, Ithaca NY **January 2024–Present**

- Manage operations of a student-facing manufacturing studio; developed structured training programs and proficiency assessments for metalworking equipment across a high-throughput environment
- Led equipment modernization initiative; identified and oversaw replacement of damaged tooling to improve lab reliability and student safety

Photolithography Equipment Engineering Intern, *GlobalFoundries,* Malta NY **June 2025–Aug 2025**

- Supported in-house retrofits of TEL and SEMES photolithography track tools; installed cameras and DVRs in critical processing areas to accelerate wafer defect detection in Fab environment
- Owned redesign of tool panel fastening systems; developed lower-cost, CAD-designed, 3D-printed, and magnet-based replacement, improving maintainability and reducing part cost

, **Mechanical Engineering Intern,** *SRW Engineering & Architecture,* Philadelphia PA **May 2024–Aug 2024**

- Owned generation of AutoCAD floor plans for MEP infrastructure (outlets, piping, wiring, HVAC) across new, in-progress, and completed construction sites
- Led building design development from client specifications; maximized livable space by subdividing large structures into single-family units within floor height and envelope constraints
- Completed ASHRAE training and OSHA 10-Hour certification

Shock & Vibration Applications Engineering Intern, *The VMC Group,* Bloomingdale NJ **June 2021–Aug 2021**

- Designed and optimized 6DOF shock and vibration isolation systems for aerospace and defense customers using 3D modeling, FEA simulation, and nonlinear dynamic analysis
- Collaborated with customers to recommend isolator solutions protecting mission-critical equipment against off-road, turbulent flight, and blast environments

EDUCATION

Cornell University, College of Engineering, Ithaca NY

Master of Engineering in Mechanical & Aerospace Engineering **December 2026**
Bachelor of Science in Mechanical Engineering **May 2026**

Relevant Courses: Propulsion (Aircraft & Rockets), Dynamics of Flight Vehicles, Fluid Mechanics, Heat Transfer, System Dynamics, Mechatronics, GD&T, Additive Manufacturing, CAD I & II, DFMA, Computer-Aided Manufacture, MATLAB, Mechatronics, Automotive Engineering, Electric-Drive Vehicle Engineering

ORGANIZATIONS & INTERESTS

Composites Team Lead, *Cornell Hyperloop (Project Team),* Ithaca NY **February 2023–Present**

- Own end-to-end design and manufacture of carbon fiber aeroshell; annual CAD updates, FEA structural validation, layup process documentation, and chemical safety enforcement for full team production
- Lead composites engineers through full manufacturing cycle using SolidWorks, ANSYS, lathes, mills, and CNC machining to deliver flight-weight structural components

National Society of Black Engineers (NSBE), Rock Climbing Club, Ski & Snowboard Club, Boxing Club