

KEFAN WU

Mechanical Lead - Olin Electric Motorsports | MechE @ Olin College of Engineering '28
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SUMMARY

Mechanical engineering student leading mechanical systems for Olin Electric Motorsports - building tested hardware across motorsport, robotics, and fabrication, from load cases and CAD to machined, welded, validated parts.

EXPERIENCE

Mechanical Lead - Olin Electric Motorsports (Formula SAE Electric)

- Leading 30+ engineers across suspension, chassis, aerodynamics, and drivetrain subteams.
- Personally own the brake, steering, and cockpit systems from requirements through shop execution.
- Brake system: 22-lap MATLAB thermal model justified a 25% rotor mass reduction at a 3.0 factor of safety.
- Mk.8 steering: matched 27.5-degree dual U-joints cancel speed ripple; wheel 3.5 in closer, 15 degrees more upright.
- Cockpit: driver sizing across ~20 drivers, carbon-fiber seat shell, six-point harness on dedicated chassis tabs.

SELECTED PROJECTS

- Javelin VTOL drone - 300 km/h tail-sitter with zero control surfaces; every maneuver from differential thrust.
- Agent-based CFD - teaching package that lets an AI agent run headless Ansys Fluent; verified scripts, 11 documented failure modes.
- LiDAR 3D scanner - gantry scanner capturing 2,206 points at under 3% error after calibration.
- Telecaster guitar & ~\$100 guitar education kit - CNC-built, playable, used to teach 8th/9th graders.

SKILLS

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|-------------------------------------|---|
| CAD & modeling | SolidWorks, AutoCAD, topology studies |
| Simulation & analysis | FEA, CFD, MATLAB |
| Machining | CNC mill, lathe, waterjet |
| Fabrication & composites | TIG welding, carbon fiber, 3D printing |
| Electronics & controls | Arduino, ESP32, embedded sensors |
| Software & leadership | Team management, AI-assisted engineering (PyFluent, headless CFD), Python |

EDUCATION

Olin College of Engineering - B.S. Mechanical Engineering, Class of 2028

Needham, MA. Seeking a Summer 2027 mechanical engineering internship - vehicle systems, robotics, or manufacturing.