Saahas Kotian

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SaahasKotian.com | Cincinnati, OH | US Citizen

EDUCATION

Purdue University | West Lafayette, Indiana   May 2025
Bachelor of Science in Honors Mechanical Engineering   *Business Economics Minor*

SKILLS

- CAD: Solidworks Modeling, Creo Parametric, Fusion 360 (Tooling)
- Rapid Prototyping: 3D Printing, Carbon Fiber Layups, Laser Cutting, CNC Routing/Lathe/Mill
- Programming: Matlab, Excel VBA, HTML/CSS/JS, C
- Simulation: Solidworks FEA, Ansys, Xflr5, ArduPilot
- Data Management: Excel, Arena PLM, NetSuite, Teamcenter

EXPERIENCE

TREW Automation | Cincinnati, Ohio

Mechanical Engineer I   June 2025 - Present
- Designed, prototyped and commercialized power take-off units to drive v-belt off high-speed sortation systems.
- Manage in-house **3D printing** as well as external **additive manufacturing** for product development department.
- Built belt pull and horsepower calculator for belt systems in **excel VBA** following CEMA guidelines

Mechanical Engineering Co-op   Spring 2022 & 2023, Summer 2024
- Developed a pneumatic brake to cut narrow-belt accumulator **stop time by 70%**.
- Created models and drawings for new parts and large conveyor assemblies using **Solidworks**.
- Tested product configurator used to generate BOMs for customer orders in **NetSuite** and **Arena PLM**.

Alef Aeronautics | San Jose, California

Mechanical Engineering Intern   May – August 2023
- Designed, 3D printed and prepped molds for **carbon fiber layups**. Completed wet layups to produce door panels and passenger cabin for vehicle prototype (First "flying car" approved by FAA for flight testing)
- Restructured and assembled vehicle suspension following crash from preliminary flight testing.

PROJECTS

Purdue Aerial Robotics Team | Manufacturing & Testing Lead   August 2023 – May 2025

- Built aircraft fuselage and control surface skins with **carbon fiber layups.**
- Constructed wings and empennage components using **gantry router, mill** and foam cutters.
- Designed, prototyped and tested motor stand, using a load cell to test aircraft thrust at various tilt angles.
- Performed lift and drag tests on aircraft fuselage models using wind tunnels.

Purdue Senior Design | Wildfire Reconnaissance Drone   January – May 2025

- Manufactured and Assembled aircraft using **3D printed** PLA Aero and carbon fiber internal spars.
- Used **Xflr5** to prove stable horizontal flight during transition, prior to physical mission testing.
- Won the award for Sustainability at the Purdue Engineering Expo as well as the Mallott Innovation Award.

TRACE Labs | Undergraduate Researcher (Ankle Exoskeleton)   July – December 2024
- Performed **linear algorithm mapping** to relate sensor outputs to motion capture readings.
- Used **Matlab** to analyze hip and knee soft sensor and joint angle data.