# WIGNER MA


CURRENT ADDRESS
West Lafayette, IN 47906

U.S. Citizen
(860)-710-0988

PERMANENT ADDRESS
West Hartford, CT 06117

**ma895@purdue.edu**
www.linkedin.com/in/wignerma152006


**OBJECTIVE**

Motivated college sophomore with a track record of academic excellence as well as a strong background in teamwork. Open to all sorts of opportunities regarding internships and/or part-time work experience. Intending to develop professional experience utilizing efficient and excellent communication, organization, and team-building skills.

**EDUCATION**

**Purdue University,** West Lafayette, IN
Bachelor of Science in Aeronautical/Astronautical Engineering — May 2028
GPA: 3.70

**SKILLS:** CAD (Fusion/NX), CAM (Fusion), CNC Machining, 3D-Printing, PDM (Siemens Teamcenter), Bilingual (Mandarin), Team building, Collaboration, Quick Learner

**EXTRA CURRICULARS**

**Purdue Undergraduate Rocket Propulsion Lab (PURPL) ~ Turbopump,** Purdue University — January 2025 – Present

- Utilized Fusion360 to perform CAM mill operations for LOx and Kerosene inducers
- Manufactured aluminum and 304 stainless inducers via a HAAS 5-axis CNC machine
- Utilized Fusion360 to do lathe (HAAS ST20-Y) and mill (HAAS VF4) CAD/CAM for a personalized torch igniter
- Optimized turbopump shaft CAD/CAM for the purpose of testing keyway and pin torque values regarding different materials such as 304 stainless or Inconel 718
- Explored GD&T and its applications for the manufacturing of a turbopump rotor and stator out of materials such as Inconel 718, 304 stainless steel, A286 stainless steel, and 6061 aluminums
- Investigated thermal properties and gap clearances for manufacturing and shrink-fit procedures on a turbopump shaft

**Vertical Flight Systems (VFS) | GoAero,** Purdue University — August 2024 – Present

- Employed NX to design and CAD early-stage motor mounts for composite and mill manufacturing
- Identified manufacturing methods with composite materials (carbon fiber layups) for the use of creating a strong and lightweight drone framework
- Operated Fusion360 to formulate mill and lathe CAM for aluminum drone motor mounts

**RELEVANT COURSEWORK**

**MFET 163 Graphic Communication & Spatial Analysis** — January 2025-May 2025

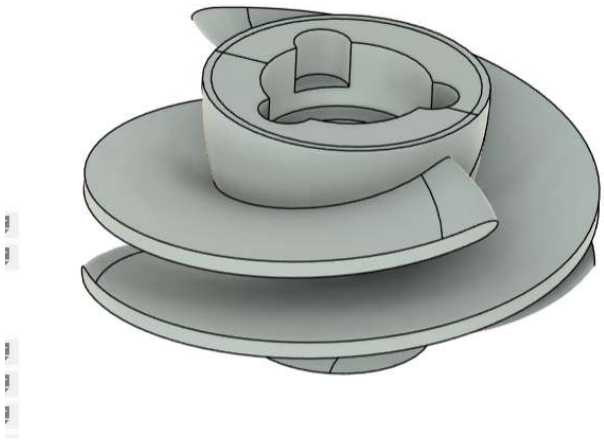
- Worked with a Product Data Management (PDM) system (Siemens Teamcenter) to support design, collaboration and geometry re-use to simulate an industry PLM setting

**RELEVANT EXPERIENCE**

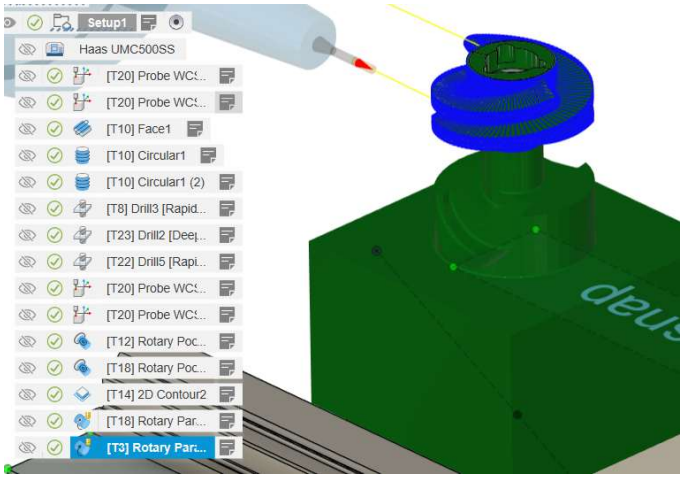
**Engineering Projects in Community Service (EPICS)**, Purdue University — August 2024-May 2025

- Redesigned a model hydraulic arm for the purpose of educating children on Purdue Space Day about the use of hydraulics
- Operated Fusion360 to CAD opening mechanisms for a passive-close claw and rack/pinion for a swiveling base to add more range of motion to the arm
- Performed as Financial Officer for the Wind Tunnel Museum project and handled financial communications between team members and leaders regarding purchases
- Experimented with SLS printing via a Formlabs Fuse 1 printer to produce precise and durable fan blades for a model wind tunnel

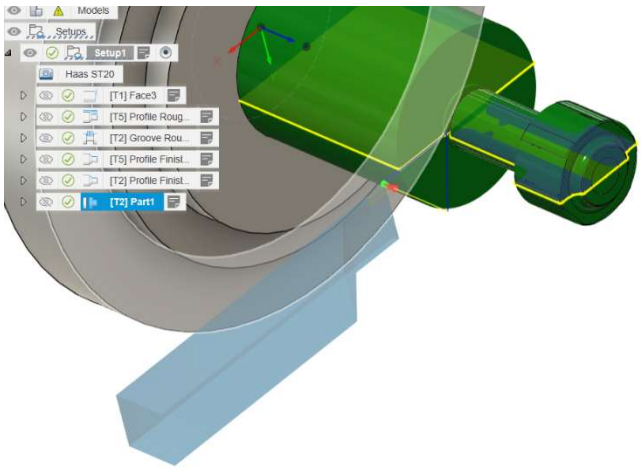
**PURPL MANUFACTURING:**



Lox Inducer CAD Model in Fusion360




Using Fusion360 to CAM out a LOx inducer on a UMC 5-axis




Using Fusion360 to CAM out a torch ignitor on a ST20-Y

5-axis machining of a Kerosene inducer on a UMC 5-axis

**EPICS:**

Used Fusion360 to model and Bambu printers to manufacture hydraulic arms for children to learn about hydraulics

Final product: Kerosene Inducer for a turbopump