

MILAN P. VIGIL

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Project Portfolio: <https://milanparis.github.io/milanvigil-portfolio/>

OBJECTIVE

Proactive and detail oriented mechanical engineering student seeking an entry-level position to support the design, testing, and improvements of the innovative defense systems core to U.S. national security. Motivated to demonstrate my skills and knowledge in CAD, modeling, Python, and Finite Element Modeling (FEM) and Analysis technologies to directly contribute to mission-critical systems and National defense.

EDUCATION

New York University | New York, NY

Bachelor of Science in Mechanical Engineering | Graduation Date: May 2026

PROJECT EXPERIENCE, SKILLS and SOFTWARE

NYU, Mechanical Engineering Student | New York, NY

- Led mechanical and CAD design for multiple engineering projects, including a language-translating glasses system (Raspberry Pi + Python) and a modular thermo-fluid cooling system for high-heat subway environments
- Conducted advanced thermal-fluid analysis using control-volume energy balances, convection modeling, fin heat transfer calculations, and ANSYS simulations to validate system performance and guide material selection
- Designed and modeled complex assemblies in SOLIDWORKS, including a scaled hotel room layout and a multi-part fighter jet assembly with structural stress/strain and aerodynamic flow simulations
- Designed a full fighter jet concept inspired by the F-22 and F-14, modeling the complete aircraft (fuselage, wings, stabilizers, engine, and cockpit) in SOLIDWORKS; performed aerodynamic and propulsion analyses to evaluate thrust, drag, and overall performance characteristics

WORK EXPERIENCE

Drury Inn & Suites | Santa Fe, NM | Events Captain May 2022 - Sept. 2023

- Independently planned and executed corporate events and meetings for 30–300 attendees, ensuring seamless logistics and high-quality guest experiences
- Managed and maintained conference facilities, including HVAC, plumbing, furniture, lighting, and AV systems, while delivering exceptional customer service to clients and team members.

The Food Depot | Santa Fe, NM | Volunteer April 2022 - May 2022

- Organized and sorted incoming donations, planned food distribution bags, and prepared home goods
- Provided English–Spanish and English–French translation assistance to support communication and coordination efforts.