Gillian A. Pinsky

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EDUCATION

Master of Science in Mechanical Engineering, *Boston University* — Boston, MA | Expected Fall 2027
Current Coursework: Additive Manufacturing, Design for Manufacturing, Medical Robotics

Bachelor of Science in Engineering, Concentration in Mechanical Engineering, *Wake Forest University* — 05/2026
GPA: 3.639 (Departmental GPA: 3.901) — Winston-Salem, NC

SELECTED ENGINEERING EXPERIENCE

CAD & Product Design Intern, *Loris SOS* — Remote | 10/2026 – Present
- Design consumer accessories in CAD, applying DFM principles to create cost-effective, production-ready models
- Produce photorealistic renderings and iterate on designs based on team feedback to communicate design intent

Mechanical Engineering Intern, *Convergent Dental* — Waltham, MA | 05/2025 – 08/2025, 05/2026 – 08/2026
- Designed and prototyped a custom servicing tool for dental laser handpiece mist-nozzle replacement, simplifying nozzle geometry for manufacturability and cleanability
- Produced and validated sheet-metal mounting plates for the laser chassis, improving accessibility and serviceability
- Created SolidWorks drawings for complex capital equipment subassemblies; organized 300+ parts into a multi-level BOM
- Identified alternate vendors and defined specs for 100+ hardware & electromechanical parts

Additive Manufacturing Intern, *Ricoh 3D for Healthcare* — Winston-Salem, NC | 08/2025 – 05/2026
- Executed regulated additive manufacturing of FDA-cleared, patient-specific Class II medical devices under eQMS and MES
- Ran SLA, PolyJet, and FDM builds on Formlabs Form 4B/4BL, Stratasys J5 MediJet/F370, UltiMaker S3/S5, Bambu H2D
- Performed dimensional inspection of printed parts via laser triangulation scanning to verify conformance to spec

Engineering Lab & Studio Student Manager, *Wake Forest University* — Winston-Salem, NC | 01/2022 – 05/2026
- Trained all new student workers at the Wake Forest Innovation Studio on every machine in the studio
- Applied DFM across CAD-to-fabrication workflows, including 3D printing, identifying process limits and common failure modes

Engineering Intern, *L. Pernía* — Salamanca, Spain | 05/2024 – 06/2024
- Diagnosed production-stopping contamination and electrical failure modes in biodegradable product manufacturing; performed material cost analysis and benchmarking

Teaching Assistant, *Wake Forest University* – Materials and Mechanics; Mechanical Computer Aided Design I — 08/2024 – 05/2026

PROJECTS & RESEARCH

Custom Drill-Press Fixture, *ME 557 Additive Manufacturing, Boston University* — Boston, MA | 10/2026
- Designed and printed a 17 g bolt-down fixture holding a pipe fitting in 2 orientations; passed inspection in both

Mechanical Design, Sleeve & Battery Housing, *Kowala Grips (student startup)* — Boston, MA | 09/2026 – Present
- Design the wearable sleeve and battery housing for a retrofit heated racket grip (≈20 W heater held near 65 °C) on a 3-person team
- Benchmarked 5 battery setups (167–319 g) vs. a 150 g target; helped spec a 2S 18650 pack with BMS (projected <50% of the weight)
- Built a play-test data-collection pipeline (Google Form + Apps Script); drafted thermal, runtime, and safety test protocols

Research Assistant, *Kandada Advanced Optical Spectroscopy Lab* — Winston-Salem, NC | 03/2024 – 05/2025
- Designed a copper cryogenic sample-mount fixture for a Montana Instruments cryostat, improving alignment precision and thermal stability and reducing measurement noise by ~79%

Mechanical Design Lead, *Senior Capstone Design* — Winston-Salem, NC | 08/2025 – 05/2026
- Owned the drivetrain design, using torque and power calculations to select gear ratios converting wave motion into rotation
- Designed, documented, and fabricated custom parts with consideration for ease of manufacturing and assembly
- Wrote test procedures; validated drivetrain performance via analytical modeling and prototype testing to guide iterations

Research Assistant, *Division of Orthopaedic Surgery, SUNY Downstate* — New York, NY | 06/2024 – 09/2024
- Applied computer vision (Roboflow) to classify surgical tools; curated and labeled datasets to improve AI model accuracy

SKILLS

CAD & Design: Creo, SolidWorks, Fusion 360, Onshape, Sheet Metal, GD&T, DFM

Additive Manufacturing & Fabrication: FDM, SLA, PolyJet, UltiMaker Cura, CNC Machining, Laser Cutting, MIG Welding

Inspection & Quality: Laser Triangulation Scanning, Dimensional Inspection, eQMS, MES, BOM & Document Control

Programming & Electronics: Python, MATLAB, Simulink, Google Apps Script, Arduino, Soldering, Circuit Prototyping

LEADERSHIP & AWARDS

President, Society of Women Engineers, Wake Forest (2025–26) · **Treasurer,** Wake Forest Robotics Club (2024–25) ·
Professional Chair, Theta Tau, Wake Forest (2024–25) · **Runner-Up,** Wake Forest School of Medicine Circular Hackathon (2025)