

Peter Nesin

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Mechanical Engineer — CAD • Prototyping • CNC Manufacturing • Public Installations

PROFESSIONAL SUMMARY

Hands-on mechanical engineer combining precise CAD with practical fabrication. Experienced in CNC milling, 3D printing, and laser cutting; fluent in SolidWorks and Autodesk Inventor; comfortable with MATLAB and Arduino. Strong record of leading prototyping efforts and delivering installation-ready work. Based in Chicago, IL.

EDUCATION

Washington University in St. Louis	Dec 2025
B.S., Mechanical Engineering	
Minors: Robotics; Studio Art (Sculpture Concentration)	

Montgomery Blair High School — Magnet Program (SMCS)	May 2021
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SELECTED PROJECTS

University City Public Art Installation — “Let’s Meet Here Again” – Designer and Sculptor	2025
• Presented a proposal to the University City Arts and Letters commission to create a fully-funded site-specific art installation	
• Designed, fabricated, and installed three large-scale CNC-cut sculptures; managed proposal, budget, CAM/CNC, painting, logistics, and installation.	
• City offered opportunity for permanent display; re-installed for a private collection following cross-country transport.	
Pole-Climbing Robot – Mechanical Lead & Fabrication Lead	2024
• Owned full mechanical design in SolidWorks; fabricated with laser cutting and rapid prototyping.	
• Integrated control via Raspberry Pi; achieved successful climb test.	
Cilia-Bots Research – Researcher, WUSEF / Dr. Bayly Lab	2023
• Developed robotic models of cilia; 3D printing, soft materials, electronics, and soldering.	
• Produced poster and presentation; contributed to long-running bio-inspired robotics effort.	

PROFESSIONAL EXPERIENCE

Senior MakerTech – Jubel Spartan Lightmetal Makerspace — Washington University in St. Louis, MO	Oct 2022 – Present
• Managed makerspace fabrication operations; maintained and upgraded a 3D printer fleet (10+ units).	
• Supported 250+ student projects each semester with prototyping, troubleshooting, and fabrication training.	
• Designed camera mounts and fixtures to support cloud/remote monitoring; trained 5+ new MakerTechs.	
Undergraduate Researcher – WUSEF / Dr. Bayly Lab — Washington University in St. Louis, MO	May 2023 – Aug 2023
• Designed robotic analogs of biological cilia to study motion mechanics; SolidWorks + rapid prototyping.	
• Presented poster and talk at summer research symposium.	

President & Mechanical Design Lead – FRC Team 449 — Silver Spring, MD	Sept 2017 – Feb 2023
• Led mechanical design and fabrication for competition robots; operated CNC; oversaw CAD & machining teams.	
• Developed reliable endgame mechanisms (climbing arms, flipping devices); mentored students in shop practice.	

KEY SKILLS

Fabrication: CNC mill, laser cutter, MIG welding, manual mill, lathe, hand/power tools **Software:** MATLAB, Arduino
Design & Modeling: SolidWorks (CSWA), Autodesk Inventor, CAM/CNC workflows, technical drawing
Techniques: Rapid prototyping, 3D printing, soldering, electronics, project management