Nicola Kunz

U.S. and Swiss Citizen | Boston, MA | (315)-604-8409 | Kunz.N@Northeastern.edu | linkedin.com/in/nicolakunz

Education

Northeastern University – GPA 3.259/4.0 Expected May 2027

Master of Science in Mechanical Engineering with Focus in Mechatronics

- Relevant Courses: Robot Mechanics and Controls, Control System Engineering, Regulatory and Quality Aspects of Medical device Design

Rochester Institute of Technology – GPA 3.19/4.0 December 2023

Bachelor of Science in Electrical Mechanical Engineering Technology

- Relevant Courses: Thermal Fluid Science II, Experimental Methods for EMET, Quality Engineering Principles, Welding Principles, Automation Control Systems, Machine Tools Lab

Skills

CAD & Design: Solidworks (parts, assemblies, GD&T drawings), Bambu Studios, PrusaSlicer, UltiMaker Cura

Prototyping & Fabrication: Drill Press, Lathe, **3D- Printing** (setup, orientation, maintenance)

Soft Skills: Soft Skills: Leadership, Analytical Thinking, Problem Solving, Technical Communication, Time Management, Teamwork, Adaptability, Attention to Detail, Initiative

Work Experience

EXP Makerspace Student Supervisor, Northeastern University – Boston, MA January 2026 – Present

- **Supervise metal fabrication shop** operations including CNC mill, waterjet cutter, TIG/MIG welding stations, and band saw, ensuring safe operation and equipment readiness for staff and student patrons
- Perform **daily startup and calibration** procedures for CNC and waterjet systems to maintain operational readiness for training sessions and credentialed patron use
- Training to become certified equipment trainer for CNC, waterjet, and TIG/MIG welding; currently supervise credential training sessions for student patrons
- **Troubleshoot and repair** Ultimaker and Prusa 3D printers to minimize equipment downtime

Engineering Intern, Volpi USA – Auburn, NY September 2024 – January 2025

- Reverse engineered 15 pre-fabricated fixtures to document as **CAD models and engineering drawings**
- **Designed a custom fixture and CAD models** enabling precise PCB alignment and placement within a clinical tester
- **Reduced Fixture prototyping costs by $400 per unit** by implementing 3D printing as an alternative to machined 6061 aluminum, enabling rapid design iteration and validation
- Tested and evaluated 3D printing fixture prototypes for dimensional accuracy and functional performance, iterating designs based on test results to meet assembly requirements
- Onboarded three team members and served as the primary contact for troubleshooting and maintenance of 3D printing operations

Engineering Intern, Volpi CH – Dietikon, Switzerland April 2022 – July 2022

- **Designed GD&T compliant engineering CAD drawings** for new parts with SolidWorks, ensuring manufacturability and proper documentation
- **Machined prototype fixtures** using CNC, Drill Press, and Lathe; verified accuracy and fit through iterative testing

Engineering Intern, Volpi USA – Auburn, NY April 2021– July 2021

- Reverse engineered and identified suppliers for a clinical tester, reducing cost by 20%
- Created a comprehensive wiring diagram by analyzing and documenting the electrical layout of a clinical tester, improving system traceability and maintenance efficiency
- **Developed standardized CAD modeling guidelines and documentation**, ensuring design consistency across projects

Personal Project

Kit Car Construction April 2020

- Assembled a Factory 5 Mk4 Roadster Kit Car featuring a fiberglass body and steel frame
- Used metal shears, handheld drills, grinders, saws, torque wrench, and riveting tools to fabricate and fit body panels
- Interpreted building manuals and technical drawings to plan assembly steps and verify component compatibility