Tom Mikolyuk

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Product Design & Development Engineer

- 4 years of experience in hardware product development and mechanical engineering
- Design, development, testing, and integration experience spanning 5 novel products and varying subsystems, including electronics enclosures, tooling & fixturing, robotics, end effectors, optics, PCBs, and medical devices
- Skilled in MCAD & ECAD, including SOLIDWORKS, Onshape, Fusion, EAGLE, and KiCad
- 6 years of experience in rapid prototyping, including SLA/FDM 3D printing and CNC milling, and industrial manufacturing processes, including sheet metal and composite layup
- Named co-inventor on 3 USPTO patent applications (US20250208192A1, US20250352715A1, US20250370034A1)

Experience

Chiplytics Inc. *Seattle, WA*

Lead Product Engineer Jul 2025 - present

- Lead mechanical engineering, industrial design, fabrication, and demos across entire test equipment product line
- Develop ISO9001-compliant product development processes and documentation (assisted with first-ever audit)
- Recruit and mentor university interns and entry-level talent in cross-disciplinary projects

Product Development Engineer Aug 2023 - Jul 2025

- Co-invented Microelectronics Inspection Platform and led mechanical prototyping for 4 demos and first pilot program, designing, assembling, and testing 100+ parts and PCB assemblies
- Designed & fabricated first commercially-sold Power Spectrum Analysis and Quickturn Socket units by leveraging FDM/SLA 3D printing, owning design cycles and building new supplier relationships

Mechanical Engineering Intern Aug 2022 - Dec 2022

- Designed modular enclosure for pilot Power Spectrum Analysis product, reducing unit cost by 50%
- Led equipment maintenance initiatives, communicating with OEMs over 3 month period and restoring in-house PCB milling capabilities
- Reduced R&D time for patent-pending Quickturn Sockets by 60% through parametrized Python scripts, process engineering, and CAM software testing

simpl▪e▪vac *(University of Washington Human Photonics Lab)* *Seattle, WA*

Consultant Aug 2023 - present

- Reviewed engineering design drawings and application materials for provisional patent & human subjects trial
- Produced informational brochures, presentations, and videos, and pitched to clinical and non-clinical audiences
- 2025 Patient Safety Technology Challenge semifinalists and 2025 ACG Case Reports Journal Award recipients

Clinical Engineer Sep 2022 - Jul 2023

- Co-invented novel gastrointestinal surgery device for vacuum-pressure sealing of leaks/tears in esophageal tissue
- Led communication with 10+ external and internal partners, coordinating product research, testing & feedback
- Set design objectives, hired & onboarded 4 new team members to assist with process & prototype development
- Defined go-to-market strategy by researching funding, FDA pre-market approval, and human trial opportunities
- Pitched at 2023 Dempsey Startup Challenge, winning 3rd-place prize

Education

University of Washington, *Seattle, WA* | B.S. Mechanical Engineering | 3.64 GPA Sep 2019 - Jun 2023

- Activities: *Engineering Design Coaches, Interdisciplinary Honors, Honors Peer Mentors, HuskyADAPT, Theta Tau*
- Awards: *'22 Danner Endowed Scholarship, '23 Emerging Leaders Scholarship, '23 Dempsey 3rd Place Prize*
- Related coursework: *Additive Manufacturing, Embedded Computing, Engineering Innovation in Health, Finite Element Analysis, Machine Design, Science & Engineering for Social Justice, System Dynamics Analysis*