# Tom Mikolyuk

# Summary of Qualifications

- 3 years' experience in mechanical engineering and 4 years' experience in product development
- Named co-inventor on 3 USPTO patent applications
- Product design, development, and integration experience spanning 4 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, and EAGLE, with GD&T experience
- 5 years' experience in rapid prototyping, including SLA/FDM 3D printing and CNC milling, validation testing, and industrial manufacturing processes, including sheet metal, injection molding, and composite layup

## Experience

#### Chiplytics

#### Lead Product Engineer

Be the bridge between our customers and electrical, software, & mechanical engineering

#### Product Development Engineer

- Co-invented Microelectronics Inspection Platform and led mechanical design and integration, designing, prototyping, assembling, and testing 100+ parts and PCB assemblies for 4 demos and first pilot program
- Designed & produced first 7 commercially-sold Power Spectrum Analysis and Quickturn Socket units by leveraging FDM/SLA 3D printing, owning design cycles and building new supplier relationships
- Created and updated documentation on designs, tests, in-house fabrication processes, and product decisions
- Managed and mentored undergraduate hardware engineering intern in 2 robotics & systems design projects

#### Mechanical Engineering Intern

- 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** (UW Engineering Innovation in Health)

#### Consultant

- Produced informational videos for clinical and non-clinical audiences; showcased at Digestive Disease Week 2024
- Reviewed engineering design drawings and application materials for provisional patent & human subjects trial
- Pitched at 2024 Patient Safety Technology Challenge; invited to, and attended, CES 2025 as semifinalists

#### Clinical Engineer

- 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

- Activities: Interdisciplinary Honors, Honors Peer Mentors, HuskyADAPT, Engineering Design Coaches, 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

# Aug 2022 - Dec 2022

### Sep 2022 - Jul 2023

Aug 2023 - present

#### Sep 2019 - Jun 2023

#### Aug 2023 - Jul 2025

Jul 2025 - present