

# Joel D. Pingel

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## Education

University of Michigan, Ann Arbor, MI

*Masters of Engineering, Biomedical Engineering*

May 2024

• Cumulative GPA: 4.00/4.00

*Bachelor of Science, Biomedical Engineering with Honors*

May 2023

• Cumulative GPA: 3.98/4.00

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## Work Experience

**Mechanical Design Engineer - RISE Rotational Program | Stryker Instruments | Portage, MI**

*Mechanical Design Engineer - Interventional Spine*

July 2025-Present

- Executed prototype development, mechanical and electrical testing, and customer interactions to mature product design
- Designed and manufactured prototypes, created test protocols and configurations, and facilitated user testing and feedback
- Implemented novel mechanical subassembly, completed over 10 system-level tests, and supported 4 VOC events

**Product Engineer - Innovation and Product Excellence Shared Services**

January 2025-July 2025

- Managed 12 sustainment and improvement projects for ENT, OI, IVS, and NS products
- Orchestrated cost reduction initiatives, design changes, developmental tests and data analysis, and supplier requests
- Proposed over \$260K in annual savings and the redesign and testing of 9 assembly fixture and device components

**Advanced Quality Engineer - Orthopedic Guided Instruments**

July 2024-January 2025

- Led cross-divisional risk management initiatives for mechanical instrumentation in preparation for early-stage DRs
- Developed the RMF, Annual Usage Definition, and Risk Documentation Strategy to guide risk control implementation
- Coordinated and delivered completed risk documentation and DR requirements in advance of project deadlines

**Mechanical Engineering Intern | Stryker Medical | Portage, MI**

May 2023-August 2023

- Spearheaded major design and process improvements to three of Stryker's Emergency Care products
- Produced design and process developments through CAD, business partnerships, and root cause analysis
- Modeled and proposed multiple prototypes and quantitative results proving their efficacy and impact

**Research and Development Engineering Intern | Stryker ENT | Plymouth, MN**

May 2022-August 2022

- Performed design improvements and quantitative testing to advance preventative nasal valve collapse technology
  - Built prototypes to evaluate novel mechanics and spearheaded multifactorial experimentation and analysis
  - Led early-stage research and development to guide future improvements of the nasal implant device
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## Leadership and Extracurriculars

**Stryker Emerging Professionals ERG Liaison Chair | Stryker Instruments | Portage, MI**

November 2024-Present

- Managed internal logistics for the Employee Resource Group dedicated to the development of early-career professionals
- Integrated event attendance tracking workflows and maintained shared calendars to align with other employee groups
- Ensured the orderly operation of cross-functional events for an 800+ member professional organization

**Graduate Student Instructor and Instructional Aide | University of Michigan**

January 2023-May 2024

- Directed engineering course administration and enhanced student understanding through individualized instruction
  - Maximized student success through weekly office hours, hands-on lab sections, and course content creation
  - Maintained an average grade of an A for over 850 students while coordinating with multiple instructional teams
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## Certifications, Patents, and Academic Awards

- Engineer-in-Training (EIT), State of Michigan, 2025
  - CREO Parametric Certified Associate, 2025
  - Pingel, Joel. 2023. Bladder Drainage and Irrigation Pump. Provisional U.S. Patent filed August 25th, 2023. Patent pending.
  - 2023 Design by Biomedical Undergraduate Teams (DEBUT) Challenge Honorable Mention
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## Skills

### Engineering and Device Development

- CREO/SOLIDWORKS/Fusion 360
- ISO 13485, 14971, IEC 62366
- Six Sigma, DMAIC, Minitab

### Laboratory

- Experiment Design
- Material Characterization Testing
- Statistical Analysis

### Personal

- Exceeding Expectations
- Managing Projects
- Growing Relationships