

## Education

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- University of Michigan, College of Engineering, Ann Arbor, MI** (August 2023 – May 2024)
- GPA: 3.70/4.00, MSE Biomedical Engineering, Concentration in Biomaterials and Regenerative Medicine
- University of Michigan, College of Engineering, Ann Arbor, MI** (August 2019 – May 2023)
- GPA: 3.44/4.00, BSE Mechanical Engineering – Cum Laude, Minor in Biochemistry, College of Engineering Honors Program
  - Honors Capstone Project: “Ex-Vivo Human Clot Analog Fabrication for Mechanical Thrombectomy Device Validation”
  - Awards/Honors: College of Engineering Dean’s Honor List, University Honors, James B. Angell Scholar, Tau Beta Pi Centennial Endowed Scholarship Fund, William J. Branstrom Freshman Prize, Adam Miller Memorial Fund Scholarship
  - Honor Societies: Tau Beta Pi – Michigan Gamma Chapter, Pi Tau Sigma – Michigan Phi Rho Chapter, Phi Kappa Phi

## Work Experience

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- University Unions, Student Life, University of Michigan, Ann Arbor, MI** (October 2023 – May 2024)  
*University Unions Operations Setup Staff*
- Organized and maintained public university event spaces and operations serving 250+ guests daily, coordinated and executed setup of furnishings, catering, and audio/visual equipment fulfilling student and visitor event requirements, offered guest advisory/directory aid
- Michigan Medicine Zopf Lab, University of Michigan, Ann Arbor, MI** (January 2022 – May 2024)  
*Undergraduate/Graduate Student Engineering Research Assistant*
- Designing and fabricating a novel customized chin/neck brace device for cerebral palsy patient head and airway support
  - Completed design and material verification experiment on commercial and novel nasopharyngeal airway devices, analyzed effect of saline submersion to mimic and evaluate feasibility of long-term patient use, presented work in journal paper: “Effects of Saline Submersion at Body Temperature on Airway Supportive Devices including a Novel Nasopharyngeal Device Produced using 3D-Printing”
  - Built custom 3D printer assembly and syringe extruder to explore FDM 3D bioprinting and customized tissue engineering/fabrication
- Biomedical Manufacturing and Design Lab, University of Michigan, Ann Arbor, MI** (September 2020 – May 2024)  
*Undergraduate/Graduate Student Engineering Research Assistant/Intern*
- Fabricated novel human blood clot analogs for mechanical thrombectomy device evaluation, completed dynamic mechanical analysis testing and pathology analysis of clot analogs, worked with biosafety level 2 materials in wet lab, presented work via public honors capstone poster presentation and report
  - Aided development of an upper airway pressure sensing endoscope device for obstructive sleep apnea diagnosis, explored device clinical testing and implementation, shadowed sleep apnea patient visits/evaluations
  - Contributed to the development of an intelligent wearable ankle device to monitor and evaluate patient walking behavior, facilitated walking motion data collection and processing, supported clinical trial preparation, presented work in public poster presentation
- Summer Undergraduate Research in Engineering, University of Michigan, Ann Arbor, MI** (May 2021 – August 2021)  
*Mechanical Engineering Research Intern*
- Designed and manufactured custom finger prostheses via scanned patient anatomy and SLA 3D printing, aided prosthesis quality control and clinical patient evaluations yielding positive feedback, presented work in public poster presentation and case-study journal paper: “Fabrication and assessment of partial finger prostheses made using 3D-printed molds: A case study”
  - Designed, fabricated, and tested custom knee replacement implant models with improved articulation based on patient anatomy
- Anaren, TTM Technologies, Syracuse, NY** (May 2020 – January 2021)  
*Radio Frequency Engineering Intern*
- Completed work on ITAR compliant radio frequency engineering projects, assisted in the design and manufacture of radio frequency electronics systems and circuit parts/components, developed tracking system to monitor part failure and apply root cause analysis
  - Set up and ran part quality control and performance testing hardware to track and troubleshoot part behavior and increase production yield
- Cavalry Club, Manlius, NY** (June 2019 – August 2019)  
*Pool Lifeguard*
- Maintained pool area safety and operations, observed 20-30 pool users on average, administered advisory and medical aid as needed, certified and trained by the American Red Cross for AED use, CPR, first aid, lifeguarding, and waterfront skills

## Skills

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**Languages:** Native English fluency, basic proficiency in Spanish

**Practical:** Proficient in FDM and SLA additive manufacturing, hand/power tool use, lathe/mill machining, soldering, and wet/dry lab techniques

**Programming Languages:** Proficient in MATLAB, basic proficiency in Arduino, C++, Python, and R/RStudio

**Software:** Proficient in Altair HyperWorks, Ansys Electronics Desktop/Granta EduPack, Autodesk AutoCAD/Fusion 360/Inventor, COMSOL Multiphysics, Dassault Systèmes SolidWorks, Digilent WaveForms, Formlabs PreForm, Materialise 3-matic/Mimics, Microsoft Excel/Office, MSC Adams, National Instruments LabVIEW, PerkinElmer ChemDraw, PyMOL, and Robert McNeel & Associates Rhinoceros 3D

## Leadership/Service Experience

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- Michigan Medicine Department of Emergency Medicine, Ann Arbor, MI** (July 2022 – November 2023)  
*Adult Emergency Services Volunteer*
- Volunteered weekly serving 100+ bed emergency department, led patients/visitors to rooms, assisted check-in process and clerk duties, restocked unit supplies/PPE and distributed blankets/food/water, addressed visitor questions and delegated patient concerns to nursing staff
- University of Michigan Services for Students with Disabilities, Ann Arbor, MI** (August 2021 – December 2021)  
*Volunteer Note Taker*
- Transcribed 8 hours weekly of lecture and lab meeting content for 2 upper-level mechanical engineering courses
  - Supported ADA compliance and equal education opportunities by uploading notes online for use by students with disabilities