

## EXPERIENCE

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- **Amplibotics AI** Las Vegas, NV  
*Founding Mechanical Engineer | Hardware Team* Jan. 2025 - Present
  - Owned company-wide CAD infrastructure in Onshape, implementing PLM best practices to manage revision control, part traceability, and multi-assembly configurations of robotic cells.
  - Developed electromechanical components and robot tools for GRIPs (Generative Intelligence Robotics Pod) systems with a focus on design for reliability, manufacturing, assembly, and cost
  - Managed and maintained a fleet of 20 robots operating 24/7, supporting deployment, mechanical & electrical troubleshooting, preventative maintenance, and reliability improvements.
- **Ocado Technology** Las Vegas, NV  
*Mechanical Engineer | Advanced Technology Research and Development* Jun. 2023 - Nov. 2024
  - Developed and implemented test setup for reliability testing of robotic arm components based on FMEA guidelines. Analyzed failure occurrences and provided recommendations to mechanical and electrical teams.
  - Led migration of robot arm design from Fusion 360 to Onshape and used PLM to track and document iterations of parts and assemblies. Drafted and reviewed part and assembly drawings using GD&T and ASME 14.5 standards.
  - Designed end-effector tool prototype for Automated Fiber Placement of carbon fiber composites and developed simulation for trajectory path generation for layup and winding of fibers.
- **Haddington Dynamics** Las Vegas, NV  
*Mechanical Engineer Intern | Hardware Team* Jun. 2022 - Sep. 2022
  - Engineered and manufactured custom parts, fixtures, and tools for robot arms using Solidworks and Fusion 360.
  - Applied DFM, DFA, and DFMEA methods to reduce BOM costs and optimize reliability and performance of parts.
  - Collaborated with cross disciplinary teams in developing proof of concept robotics automation application and supported in securing \$200K innovation grant for next phase of product development.

## RESEARCH EXPERIENCE

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- **New York Institute of Technology** Old Westbury, NY  
*Graduate Research Assistant* Jan. 2022 - May 2023
  - Assisted in the construction of experimental setup to model the precision, accuracy, and motion repeatability of robotics systems using Phase-Shifting Laser Feedback Interferometry.
  - Measured and collected data from experimental setup using a NI data acquisition device and performed data post processing using MATLAB and Wolfram Mathematica.
  - Mentored new students in engineering fundamentals and practices, lab equipment usage, and analysis tools.
- **Vanderbilt Institute of Nanoscale Science and Engineering** Nashville, TN  
*Undergraduate Research Assistant* May 2019 - Aug. 2019
  - Analyzed the transport of protons in solid electrolytes for the electrochemical production of ammonia.
  - Acquired skills in electrochemical methods and spectroscopy for the characterization of experimental materials.

## EDUCATION

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- **New York Institute of Technology** Old Westbury, NY
  - M.S. in Mechanical Engineering, Mechatronics Systems. Sep. 2022 – May. 2023
  - B.S. in Mechanical Engineering, Aerospace Concentration. Sep. 2018 – May. 2022
    - **Achievements:** B.S. Mechanical Engineering Faculty Gottlieb Koenig Award.

## SKILLS AND TOOLS

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- **CAD & Simulation Tools:** SolidWorks, Onshape, Fusion 360, Siemens NX, AutoCAD, ANSYS Structural, Gazebo.
- **Technical Standards:** GD&T, ASME Y14.5, ISO 9409-1.
- **Engineering Software:** MATLAB, Simulink, Vivado, LabVIEW, Mathematica, ROS2, Python, Git, C++, Linux.
- **Skills:** Motor Selection, Sensors & Actuators, FPGAs, NVIDIA Jetson, DAQs, Raspberry Pi, Arduino

## PROFESSIONAL ORGANIZATIONS

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Society of Hispanic Engineers | American Society of Mechanical Engineers | Society of Women Engineers