

EDUCATION

Georgia Institute of Technology <i>M.S. Robotics concentration in AI, Computer Vision, Controls</i> GPA: 3.83/4.00	2021 - 2023
Tennessee Technological University <i>B.S. Mechanical Engineering concentration in Mechatronics</i> GPA: 3.95/4.00	2015 - 2019

EXPERIENCE

Lead Robotics Engineer - Symbotic Automation <ul style="list-style-type: none">Responsible for management of 15+ personal and site operations consisting of hundreds of robotic and electrical systemsUnder my guidance our site achieved final acceptance (milestone rates and availability) faster than any other siteGrew our site up from 1,000 to 100,000 cases per day in a few monthsCreated custom python and SQL scripts, to automatically pull and analyze site data from large databasesUsed PLC, software, and electrical tools to repair and debug robotic and electrical systems	2023 - Current
Graduate Research Assistant - Robotics Lab <ul style="list-style-type: none">Worked as a paid research assistant where I apply machine learning to roboticsLed projects, designed and trained models, implemented interpretability tools, collected and curated video datasets, and designed data capture hardware and protocolLed a lab reading group focusing on transformers, RL, and current robotics papers	2022 - 2023
Project Lead Robotics Engineer - E.G.O. Products <ul style="list-style-type: none">Programmed AGV to store and deliver 500 spools to 4 lines with robust error handlingTrained 30 workers and 4 engineers to interact with my custom user interface and the robotManager of robotics line, added a buffer to the line which alleviated a large bottle neck	Summer 2022
Project Lead Engineer - Johnson Controls <ul style="list-style-type: none">Designed a sprinkler with a new custom wrench-able cap design and wall bracketWorked on a material change for 3 different sprinklers with an annual volume of 2 million unitsDesigned and tested sprinklers that are compliant with NFPA, UL, and FM	2020 - 2021
Mechanical Engineer - Protomet Manufacturing <ul style="list-style-type: none">Designed and manufactured a universal speaker mount that has been sold to companies and designed other products	Summer 2018
Engineer - Oak Ridge National Laboratory <ul style="list-style-type: none">Worked with fire modeling software (FDS) to discover the optimal building safety designCo-authored fire protection engineering assessment (FPEA) of multiple facilities using NFPA 13, NFPA 25 codes	Summer 2016

PUBLICATIONS

<i>ForceSight: Multi-Task Text-Guided Mobile Manipulation with Visual-Force Goals</i> - Link <ul style="list-style-type: none">Proposes visual location and force goals for mobile manipulation, enabling a variety of robotic tasks	ICRA 2024
<i>Visual Contact Pressure Estimation for Grippers in the Wild</i> - Link <ul style="list-style-type: none">With an image as input, our model achieves SOTA contact pressure and force/torques estimations for robot grippers	IROS 2023

PROJECTS

Learning Robotic Tasks from Video Demonstration <ul style="list-style-type: none">Programmed a robot that, in a simulated robot environment, learns tasks using only video data with a transformer	2022
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SKILLS

Programming: Python, C++, MATLAB, PyTorch, TensorFlow, Git, Linux, ROS, Computer Vision, Machine Learning
Engineering: Solidworks, CAD, Creo, ANSYS, LabVIEW, Arduino, Robotics || **Machining:** Mills, Lathes, CNC