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EDUCATION

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

EXPERIENCE

Graduate Research Assistant - Healthcare Robotics Lab • Applied machine learning to assistive household robotics • Led projects, designed and trained models, implemented interpretability tools, collected and curated video datasets, designed data capture hardware and protocol • Led a lab reading group focusing on transformers, RL, and current robotics papers	2022 - 2023
Project Lead Robotics Engineer - E.G.O. Products • Programmed AGV to store and deliver 500 spools to 4 lines with robust error handling • Trained 30+ workers to interact with my custom user interface and the robot • Manager of robotics line, added a buffer to the line which alleviated a large bottle neck	Summer 2022
Project Lead Engineer - Johnson Controls • Designed and launched a new sprinkler with tamper resistant design for use in prisons • Submitted two invention disclosures for sprinkler products I designed	2020 - 2021
Mechanical Engineer - Protomet Manufacturing • Designed and manufactured a universal speaker mount that has been sold to companies and designed other products	Summer 2018
Engineer - Oak Ridge National Laboratory • Worked with Fire Modeling software (FDS) to discover the optimal building safety design	Summer 2018

PUBLICATIONS

<i>Collection of Data on AI Progress</i> • AI models history & costs, hardware, software, & benchmark progress, AI papers published, forecasting, etc.	In Progress
<i>~Scalable transformer based Robot Learning , Text Commands and Images as Input~</i> • ~Using a transformer to train a scalable model, handles tasks such as “open drawer” and “pick up penny”~	In Progress
<i>Visual Contact Pressure Estimation for Grippers in the Wild - Link</i> • With an image as input, our model can estimate contact pressure and force/torques for robot grippers	2023

PROJECTS

Learning Robotic Tasks from Video Demonstration • Designed a robotic system to learn control policies using only video data in a simulated robot env with a transformer	2022
Combination and Benchmark of RL Models • Created a custom RL agent and benchmarked the top RL algorithms using OpenAI Gym	2022
NLP Sentiment Analysis • Created and trained an NLP model, used on a custom test set of tweets & reddit posts to evaluate sentiment on a topic	2022

SKILLS

Programming: Python, C++, MATLAB, Computer Vision, Machine Learning, Git || **Design:** Solidworks, CAD, Creo
Machining: Mills, Lathes, CNC Machines || **Other:** ROS, LabVIEW Linux, ANSYS