

Tristan Linn

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EDUCATION

B.S in Mechanical Engineering with minor in Computer Science
The University of Texas at Dallas, Richardson, TX

Aug 2020 – May 2024
GPA 4.0

PROFESSIONAL EXPERIENCE

Engineering Intern | OTR Wheel Engineering

May 2023 – Aug 2023

- Designed and reverse-engineered production CAD models of rims, wheels, and track treads using AutoCAD, Creo PTC, and Windchill to expand global product line. Drafted and approved engineering drawings.
- Assisted in quality assurance assessments, performing inspections to ensure compliance with industry standards.

Student Researcher | HBS Lab at the University of Texas at Dallas

Nov 2021 – Current

- Design, prototype, and test both smart material actuators as well as a social assistive humanoid robot using SolidWorks, FDM printing, and mold manufacturing techniques at the Humanoid, Biorobotics, and Smart Systems Lab at the University of Texas at Dallas.

Support Supervisor | OIT Help Desk at the Uni. of Texas at Dallas

Aug 2021 – Current

- Recognized for work ethic and adaptability through promotion to supervisor within 6 months period.
- Managed various campus-wide technical support activities, including documenting major incidents, updating user search databases, managing licensing and network servers, as well as managing student workers through training, delegation, and effective resource management.

PERSONAL ACCOMPLISHMENTS

Published “HBS-1.2: Lightweight Socially Assistive Robot with 6-Ply Twisted Coiled Polymer Muscle-Actuated Hand” (July 2023) and have two additional robotics and smart material publications pending (Sept 2023)

Jonsson School Undergraduate Research Award (JSUGRA)

January 2023

National Merit Full Scholar

August 2020

Eagle Scout, Boy Scouts of America

October 2018

Collegium V, Honors College / Dean’s List (6 consecutive Semesters)

SKILLS

Manufacturing Techniques: CAM, Machining, FDM and SLA Printing, Soldering, Brazing, Mold Design

Modeling Tools: SolidWorks, Creo PTC, AutoCAD, Fusion 360, ANSYS, OnShape, MATLAB, Simulink

Software: Java, Python, Arduino, Latex, G-Suite, Microsoft Office

Languages: English (Fluent), German (Intermediate/ 2.5 on ILR Scale)

PROJECTS (Portfolio under featured and projects on LinkedIn)

Smart Matl. Actuated Silicone Soft Gripper Assistive Robot (Aug 2023- Jun 2024) | SolidWorks, Arduino

- Designed and prototyped a 3D-printed humanoid robot that emphasized modular designed soft grippers. Soft grippers were developed using nitinol based smart material actuated (SMA) coils embedded in silicone.
- Developed and coded the robotics control and sensor systems using an Arduino Mega, PID controller algorithms, as well as embedded sensors and cameras.

22 DoF Robotic Hand (March-Aug 2022) | Fusion 360, Arduino, 3D-Printing (FDM), Soldering

- Designed and manufactured a 22 DoF mechanical hand that is entirely 3D printed and can replicate the dexterity of a human hand, performing fine motor skill operations,
- Utilized Fusion 360 for CAD, FDM printer for manufacturing, and Arduino for system and positional control

Replica of Stop Motion King Kong Armature (Oct – Nov 2022) | Fusion 360, (SLA Printing)

- Reverse engineered and modeled a 387-part CAD assembly of a 22” tall, 1:1 recreation of the stop motion armature used in King Kong (1933) from reference video.

INTERESTS:

Design Build Fly: Design RC Aircrafts in teams. Specialize in the wing structure and fluid simulations

AVAILABILITY: Internship: Fall 2023, Summer 2024

Full Time: May 2024