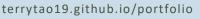
Terry Tao







Looking to continue my career by applying experience from Ford, MRacing and personal projects. Seeking to further develop my practical knowledge with strong technical mentorship at an autonomy, controls, or Al focused internship opportunity during spring-summer 2024.

Experience

Ford Motor Company | ALLEN PARK, MI

ADAS L3 Self Driving Summer Intern

May 2023 - August 2023



- Automated testing of ECU interface, successfully debugged at least 3 issues related to CAN message packing, transmitting, gatewaying and receiving
- Automated data acquisition on L3 mule F150 with MATLAB scripts
- Learned about how large companies manage project timelines

Education



University of Michigan | ANN ARBOR, MI

B.S. Robotics Engineering

EECS 203 | Discrete Math EECS 280 | Data Structures ROB 498 | Self Driving Cars AUG 2022 – APRIL 2025

ROB 101 | Computational Linear Algebra
ROB 330 | Localization, Mapping and Navigation

MATH 216 | Differential Equations

Projects and Activities

(SEE PORTFOLIO)



(See YouTube)



Formula Electric Racing (MRacing) | Autonomous System Director

SEPT 2022 - PRESENT

- Project manager for 2024 autonomous system: brakes, steering, safety electronics, controls
- Coordinated with other subteams to ensure consistent or improved levels of functionality and serviceability, while meeting design requirements specified by rules.
- Developed and tuned SLAM software stack with a ROS architecture
- Trained a custom YOLO object model for traffic cone detection and perspective mapping.

FIRST Robotics (FTC) | Club President

2018-2022

- Ranked top 40 internationally at Maryland Tech Invitational
- Programmed a triple dead-wheel odometry localizer to perform tasks fully autonomously and optimized velocity trajectories to achieve a top 40 individual score
- Iteratively Designed mechanisms in CAD to manipulate small plastic objects efficiently (grippers, conveyors, linear slides, drivetrain, etc.)

Stewart Platform 2021

- Designed a 6-DOF parallel manipulator for a regional ISEF research project
- Developed embedded kinematics and dynamics control model on microcontroller
- Implemented IMU acceleration dampening on end effector platform

Other 2019-2021

- Designed and built a custom dual-nozzle 3D printer to print dissolvable support material
- Developed silicone tether-less pneumatic artificial muscles for a regional ISEF competition

Skills

Programming:

Java | Python | C++ | OpenCV | ROS | Julia | Git | MATLAB | Pytorch | R | Simulink Software:

Solidworks | Siemens NX | Fusion 360 | Onshape | Simplify3D | Blender | YOLO | Supervisely | Canalyzer **Spoken Languages:**

Mandarin (Native)

Other Activities

Michigan Climbing Club Boy Scouts of America Varsity Golf, all-county 2022-PRESENT 2016-2021

2018-2020