

# Emily Sturman

Portfolio Website: [emily.sturman.org](https://emily.sturman.org)

## EDUCATION

### University of Texas at Austin, Austin, TX

AUGUST 2021 - MAY 2025 — GPA: 3.68

B.S. in Computer Science — Turing Scholars Honors Program; Minor in Robotics and Jewish Studies

## WORK EXPERIENCE

### Human Centered Robotics Laboratory — Research Assistant

AUGUST 2024 - PRESENT

Leveraging symmetry in multipedal robots for efficient reinforcement locomotion learning.

### Tutor Intelligence — Software Engineering Intern

MAY 2024 - AUGUST 2024

Tutor Intelligence is a venture-backed robotics startup that develops artificially intelligent co-bots for contract packagers. Integrated and deployed LiDAR human detection for improved robot safety, implemented SAM2 computer vision segmentation for palletizing applications, created a tool to copy sections of the database for local development, and made additional contributions across the stack.

### University of Texas at Austin — Teaching Assistant

AUGUST 2022 - PRESENT

Teaching assistant for CS311H: Discrete Math Honors under Prof. Isil Dilig. Responsible for leading discussion sections, grading problem sets and exams, and guiding students through course via online help and in-person office hours.

### ReNeu Robotics Laboratory — Research Assistant

AUGUST 2023 - AUGUST 2024

Interfaced exoskeleton robots with VR to develop haptic devices that realistically respond to virtual objects to gamify rehabilitation.

### Stripe — Software Engineering Intern

MAY 2023 - AUGUST 2023

Worked on the Supportability Intelligence team to build supportability-rules-srv (SRS), a full-stack application that allows non-technical strategists to view and configure deterministic supportability rules for different types of merchants. SRS handles over 100k configured rules and reduces ToS overturns by an estimated 20 reviews per week. Application frontend developed in React, GraphQL backend developed in Ruby with Sorbet, and gRPC endpoint developed in Java.

### Meta — Meta University Engineering Intern

JUNE 2022 - AUGUST 2022

Participated in Meta University Engineering program on the web track. Used ReactJS, ExpressJS, Firebase, and Elastic to build a recipe indexing app, as well as several smaller projects.

## SKILLS

Extensive experience in Python, C++, OpenCV, Typescript, and React  
Competency in PyTorch, Shapely, Open3D, scikit-learn, Ruby, and Java

SELECTED COURSEWORK (SEE FULL LIST ON LINKEDIN):

ECE 379K Computer Vision, CS 364M Principles of Machine Learning II, ME 350R Robot Mechanism Design, CS 378H Autonomous Driving Honors, ME 354M Biomechanics of Human Movement, CS 358H Introduction to Quantum Information Science, CS 378 Ethical Hacking

## SELECTED PROJECTS & EXTRACURRICULARS

SEE WEBSITE FOR RELEVANT SOURCE CODE & REPORTS

### Noise-Proofed Nightshade — Researcher

APRIL 2024 - MAY 2024

Researched, developed, and tested Noise-Proofed Nightshade, a modification to the generative diffusion model poisoner [Nightshade](#) that is nearly unaffected by denoising defenses.

### Q++ — President & Developer

AUGUST 2021 - PRESENT

President of Q++, UT Austin's organization for LGBT students in tech. Responsible for overseeing and coordinating corporate, social, and financial tasks. Also designed and built [website](#) using GatsbyJS, Netlify, and Contentful and co-built a [check-in tool](#) using React and Firebase.

### Robotic Arm — Developer

AUGUST 2023 - DECEMBER 2023

Worked with 2 group members to construct the [Stanford Pupper](#) robotic arm and implement forward and inverse kinematics. Also used OpenCV to allow arm's end-effector to track a red dot in view of laptop camera.

### SimpleSubs — Founder

JANUARY 2019 - JANUARY 2023

Built sandwich ordering system to streamline lunch ordering process at Lick-Wilmerding High School; includes app where students can create order presets and place orders up to 14 days in advance, as well as admin console where staff can edit menu and print orders using admin console. Developed using React Native, ReactJS, and Firebase. Available for iOS, Android, and web.

### FRC Team 6418: The Missfits — CTO

DECEMBER 2017 - JUNE 2021

CTO (main technical lead) of all-girls SF robotics team, the Missfits — responsible for overseeing robot design and construction. Also built and maintained team website and was robot driver at competitions.