

# WILL MORRISON

🌐 willmorrison.net

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🐙 github.com/Will-Morr

## EDUCATION

B.S. in Mechatronics Engineering

Texas A&M University

📅 May 2023

📍 College Station, TX

- Additional coursework in Computer Science and Embedded Systems
- GPA: 3.3

## WORK EXPERIENCE

Formlabs

Systems Integration Engineer

📅 Sept 2023 - Present

📍 Somerville, MA

- Shipped firmware features and improvements for C++ embedded Linux system on Form 4 & 4L
- Owned firmware on early printer prototypes
- Traced failures parsing and visualizing terrabytes of log data using SQL, Grafana, and Python
- Root-caused and fixed failures using electrical and embedded tools
- Re-architected NXP MCU real time motion controller to eliminate critical failures on short time frame
- Wrote rug tufting robot slicer for Hackathon

Vecna Robotics

Electrical Engineering Intern

📅 May 2022-Aug 2022

📍 Waltham, MA

- Interned at warehouse vehicle automation startup working with self-driving lift trucks.
- Designed, tested, and implemented steering calibration system using light sensor, fully automating a time-intensive process by collecting data and algorithmically tuning and testing calibration on vehicles.
- Designed and manufactured sheet metal assembly to enclose sensors.
- Programmed stepper motors on project to play the Super Mario Bros Theme.

Fischer Engineering Design Center

Technician in Prototyping Center

📅 Aug 2019 - May 2023

📍 College Station, TX

- Operated and maintained professional laser cutter, 3D printers (Polyjet, SLA, and FDM), 3D foam cutter, and PCB equipment (mill and laser).
- Provided design input and created prototypes for research groups working with experimental materials.

## LEADERSHIP & ACTIVITIES

Treasurer, Board Member, Volunteer

Cambridge Hackspace

📅 Jan 2023 - Present

📍 Somerville, Ma

- Volunteered as organizer to help coordinate and handle finances for community makerspace
- Planned, budgeted, and ran hurdy-gurdy build event for group of 30
- Designed and ran algorithmic laser-engraved portrait booth for Somerville Open Studios

Project Firefly (Senior Design)

Texas A&M; Software Engineer

📅 Aug 2022 - May 2023

📍 College Station, TX

- Conceptualized and implemented novel rover localization system using close-loop control of LEDs and webcam.
- Designed and fabricated electronics and chassis.
- Adapted to hardware limitations on motion planning with machine learning.

Noodle Crusade

Texas A&M; Founder, Organizer

📅 Oct 2019 - Mar 2020

📍 College Station, TX

- Organized 200+ person noodle-sword capture-the-flag events.

## HONORS

- Click-Wheel Organ project featured on Hackaday
- 1<sup>st</sup> Place at Howdyhack 2019 Hackathon

## SKILLS

- Low level: C, C++, Embedded Linux, Git, PLC
- High Level: Python, Bash, OpenCV, SQL, Big-Query, Grafana
- Embedded Architectures: NXP RT series, RasPi Compute Module, ESP32
- Procedural generation for art & CNC manufacturing using Python and OpenSCAD
- PCB Design, fab & testing using KiCAD
- Onshape CAD for 3D printers, laser cutters, foam cutters, and CNC routers
- See project portfolio at willmorrison.net