

GARETT MORRISON

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OBJECTIVE

Full-time engineering position designing, prototyping, and implementing robotic systems starting summer 2023.

EDUCATION

B.S. in Mechatronics Engineering

Texas A&M University

📅 May 2023

📍 College Station, TX

- Additional coursework in computer science
- GPA: 3.3

WORK EXPERIENCE

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 tool using light sensor, fully automating a time-intensive process by collecting data and algorithmically tuning and testing calibration on vehicles.
- Programmed stepper motors on project to play the Super Mario Bros Theme.

Arena Innovation Corp.

Mechatronics Engineering Intern

📅 Jul 2021-Aug 2021

📍 San Francisco, CA

- Interned at fitness robotics startup.
- Independently assembled, programmed, calibrated, and troubleshoot 12 ft, 600 lb pull-testing rig using C++, Python, and Ubuntu for final unit testing on production line.
- Selected, purchased, and implemented laser cutter for prototyping components.

Fischer Engineering Design Center

Technician in Prototyping Center

📅 Aug 2019 - Present

📍 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 engineering labs working with experimental materials.
- Improved machine efficiency with Lisp scripting.

LEADERSHIP & ACTIVITIES

SAE Formula Electric Team

Texas A&M; Low Voltage Team Member

📅 Oct 2021 - May 2022

📍 College Station, TX

- Worked on fully electric vehicle for racing competition.
- Designed, implemented, and troubleshoot micro-controller based data acquisition system to record and visualize high-fidelity sensor input.
- Iteratively prototyped steering wheel for controls, ergonomics, and data display.
- Designed analog safety circuit for throttle pedal.

Noodle Crusade

Texas A&M; Founder, Organizer

📅 Oct 2019 - Mar 2020

📍 College Station, TX

- Organized 200+ person noodle-sword capture-the-flag events.
- Conceptualized, advertised, budgeted, and launched group.

TAMU Robobrawl Team

Texas A&M; Electronics Team Lead

📅 Sept 2019 - June 2021

📍 College Station, TX

- Designed entire electronics system for 30 lb combat robot.
- Worked with design and fabrication team to design according to budget and weight constraints.

HONORS

- Click-Wheel Organ project featured on [Hackaday](#)
- 1st Place at Howdyhack 2019 Hackathon

SKILLS

- Computational: C++, Python, Bash, Lisp, Ubuntu
- Embedded Firmware: Arduino, ESP32
- Procedural generation of CAD files for art & CNC manufacturing, usually AutoCAD
- PCB Design and fabrication using KiCAD and LPKF Mill/Laser
- 2D and 3D modeling for 3D printers, laser cutters, foam cutters, and CNC routers
- See project portfolio at [garettmorrison.net](#)