

SHANE BLINKMAN

Mechatronics Engineer

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OBJECTIVE

Seeking and entry level mechanical engineering role where I can apply interdisciplinary expertise in robotics, embedded systems, and automation to innovative projects that combine mechanical, electrical, and software components.

DEGREE	CONCENTRATION	INSTITUTE	GRADUATION	GPA
M.S. Mechanical Engineering	Mechatronics	Stanford University	March 2025	3.74
B.S. Mechanical Engineering	Dynamics Systems and Controls	Stanford University	June 2024	3.83

SKILLS AND INTERESTS

TECHNICAL	Mechatronics (PIC32, STM32, Motor Control, Sensor Integration, Communication), CAD, Prototyping (3D Printing, Machining, PCB Design), Firmware (C, C++, Python, MATLAB)
SOFT	Problem Solving, Collaboration, Communication, Attention to Detail, Systems Thinking
HOBBIES	DIY Robotics, Science Fiction, Weightlifting

RELEVANT PROJECTS

Remote Operated Watercraft with Dynamic Control | ME218c May 2024 – Jun 2024

- Prototyped a wirelessly controlled boat that utilized custom communication protocol over XBee radio modules.
- Designed propulsion and steering subsystems utilizing DC and servo motors controlled via joystick and potentiometer inputs.
- Implemented benchmarks to assure the project was completed on schedule.

Autonomous Object Handling and Navigation Robot | ME218b Feb 2024 – Mar 2024

- Implemented a hierarchical state machine utilizing two PIC32 microcontrollers communicating via SPI.
- Prototyped object collection and launching mechanisms using a snail cam power by DC motor.
- Achieved autonomy by utilizing inputs from IR detectors, limit switches, tape detectors, buttons, and magnetic encoders.
- Resolved technical challenges, gaining firsthand experience in electrical and software debugging under tight deadlines.

PROFESSIONAL EXPERIENCE

R&D Engineering Intern | Cirtec Medical, Santa Clara, CA Summer 2024

- Redesigned manufacturing mechanism by removing overengineered components and reducing operator influence, cutting unit costs by 35% and improving part quality.
- Identified and addressed inefficiencies in oven workflows by designing a modular racking system, improving operational efficiency from ten extrusions per oven to seventy-five extrusions per oven.

R&D Engineering Intern | Artio Medical, Inc., Menlo Park, CA Summer 2022

- Prototyped and integrated securement fixtures for the Amplifi™ vein dilation system to prepare for in-human trials.
- Collaborated on electromagnetic emission testing, contributing to result interpretation and device modification strategies.
- Spearheaded the development of a comprehensive SOP for the Amplifi™ system, aligning with FDA compliance.

Engineering Tutor | Stanford University, Stanford, CA March 2024 – March 2025

- Provided tailored tutoring to engineering student-athletes, helping them to understand and apply concepts relating to dynamics, fluid dynamics, and thermodynamics.

INVOLVEMENTS

Member and 2x Team Captain | Stanford Varsity Men's Swimming August 2019 – March 2023

- Strengthen time management, work ethic and resiliency by managing 25+ hours/week of athlete/team captain responsibilities.
- Achievements: Junior National Champion, U.S. Olympic Trials Top 25 Finisher, NCAA Division 1 All-American