

Daniel H Tran
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EDUCATION

Louisiana State University (LSU), Baton Rouge, LA May 2025
Bachelor of Science, Computer Engineering
Honors: Taylor Opportunity Program for Students (TOPS) Award recipient, GO Grant
Related Coursework: Electronic Tools, Intro to PLCs, Controls Engineering

EXPERIENCE

Robotics Lab Assistant, LSU, Baton Rouge, LA August 2024 – May 2025

- Collaborated with a team of undergraduate engineers to develop an autonomous ground robot for the IEEE Region 5 Robotics Competition.
- Assisted in developing ROS 2 Python nodes for obstacle avoidance and motion control
- Created testing plans for valid movement accuracy in simulated and real-world environments.
- Contributed to presentations demonstrating progress throughout the whole project to a panel of engineers.

Server, Café du Monde, New Orleans, LA May 2022 – August 2022

- Took customer orders and prepared them with preferences in mind
- Cleaned tables and assisted with other servers when available

PROJECTS

Capstone Design Project - OCD Simulation VR Game – “A Day In My Mind”

- Worked with undergraduates on a VR experience simulating the sensory overload aspects of OCD designed in Unity.
- Developed a Gaussian blur shader using Shader Graph to create a screen-wide visual distraction, adjustable based on player interaction and progress.
- Helped integrate logic to trigger events such as audio effects or objects switching materials.

Arduino Synthesizer on Arduino

- Built a basic sound synthesizer using an Arduino microcontroller and components from a starter kit.
- Programmed each button to play a different tone and connected a seven-segment display to show what note is being played.

Elevator Controller on FPGA

- Designed and implemented a finite state machine that's based on an elevator controller using Verilog on a Basys 3 FPGA.
- Controller used switch-based inputs and LEDs to display outputs to simulate real-time control logic

SKILLS

Python, Verilog, ROS2, MIPS, MATLAB, Java, HTML5