Maddox Lin

.

EDUCATION

2024—Present
Electrical and Computer Engineering
University of Texas at Austin

2020—2024
Plano West Senior High School
GPA: 4.33

SKILLS

- Java
- C++
- ARM assembly
- C
- Python
- HTML
- CSS
- Javascript
- Full-stack web development
- Embedded systems development
- Mandarin Chinese (Conversational)

CONTACTS

- pi.mdx24@gmail.com
- 469-954-2521
- Personal website

AWARDS AND HONORS

- National Merit Finalist (2024)
- AP Scholar with Distinction (2022-2024)
- National Honor Society
- SAT: 1580

PROJECTS

CHESS GAME

- Collaborated on a group project to develop a chess game using C and ARM assembly on the MSPM0 microcontroller
- Designed and implemented game logic and board state management without an OS

RECIPE WEB APP

- Developed a full-stack recipe web app with React frontend and Flask backend
- Built intuitive UI with recipe images, instructions, and embedded YouTube videos
- Gained experience working with React, Flask, SQLite, and REST API

PERSONAL WEBSITE

- Designed and developed a personal portfolio website to showcase projects and skills
- Built using HTML and CSS, and implementing animations using Javascript

TRAFFIC LIGHT SIMULATOR

- Developed a traffic light control system using C on the MSPM0 microcontroller
- Designed a Moore finite state machine and implemented corresponding I/O in both hardware and software
- Practiced modular software design, hardware interfacing, and timing control using system timers

WORK EXPERIENCE

RESEARCH INTERN | CAST STEM BRIDGE

- Built and programmed a quadcopter drone to research and simulate countermeasures against drone fuzzing cyberattacks
- Collaborated in a multidisciplinary team to troubleshoot and resolve complex hardware/software integration issues
- Gained hands-on experience in embedded systems, cybersecurity, and UAV systems

RESEARCH INTERN | CAST STEM BRIDGE

- Developed a thermomechanical model for laser-sintered metal 3D printed parts using thermal and 3D scan data
- Applied MATLAB for advanced analysis of experimental results and model validation