Maddox Lin

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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++
- Python
- C
- ARM assembly
- HTML
- CSS
- Javascript
- Mandarin Chinese (Conversational)

CONTACTS

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

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
- Gained experience with structured programming and team-based software development
- Strengthened skills in embedded systems design and real-time input/output handling

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
- Strengthened skills in structured programming, state-based logic, and embedded system development

WORK EXPERIENCE

RESEARCH INTERN | CAST STEM BRIDGE

- Constructed a drone in order to model countermeasures against drone fuzzing cyberattacks.
- Learned flight controller programming and soldering.
- Collaborated with team members to detect and resolve hardware and software issues.

RESEARCH INTERN | CAST STEM BRIDGE

- Used thermal and 3D scan data to develop a thermomechanical model for laser sintered metal 3D printed parts.
- Learned to use Matlab for experimental result analysis.
- Used MS Excel to collect and organize laboratory data.