Alaric Y. Pan

205 Pumpkin Seed Ct., NC 28104 | 704-617-8332 | apan48@gatech.edu | US citizen

Objective

Electrical engineering major and physics minor with strong adaptability and versatility. Diligent and adept at working in high-pressure environments, learning new skills in programming and CAD, and cooperating in multidisciplinary and diverse teams. Experienced in rapid prototyping through MIT's Fab Lab network and Fab Academy program.

Education

Georgia Institute of Technology | Atlanta, GA *August 2023 – Present*
Bachelor of Science in Electrical Engineering, GPA 4.00 Expected Graduation, May 2027

Fab Academy | Charlotte, NC *January 2022 – August 2022*
Fab Diploma
Documentation: https://fabacademy.org/2022/labs/charlotte/students/alaric-pan/

Skills

Programming: Java, Python, C/C++, Rust, HTML, CSS, Markdown, MIPS assembly
Hardware: Raspberry Pi, oscilloscope, Arduino, Attiny, Greenpak logic chips
Software: GitHub, KiCAD, Fusion 360, Cuttle, Greenpak, Corel Draw, Aspire, Arduino IDE, VSCode
Languages: English (native), Chinese (conversational)

Experience

Enventys Partners | Charlotte, NC *Spring 2023*
Intern
Enventys Partners is a product launch company that handles every step from design to marketing.
- Developed Greenpak logic chip configuration for LED control.
- Created Greenpak logic chip configuration for driving a DC motor with status LED.

Young Engineers of Today | Charlotte, NC *Summer 2023*
Summer Camp Instructor
Young Engineers of Today is a STEM camp that educates middle to high school students in the latest STEM technology.
- Taught group of 15 4^{th}-6^{th} grade campers how to mod Minecraft with MCreator.
- Managed group of 10 high school campers in Wells Fargo AI camp.
- Designed and prepared materials for various summer camps.

Projects

Elon Musk Tracker | MIT Center for Bits and Atoms, Fab Academy *Spring 2022*
Student
The Elon Musk Tracker, developed in a team of 4, uses API data from ADS-B Exchange, a live flight database, to get the location of Elon Musk's private jet (or any other plane with configuration) and moves a laser pointer its location on a map with a 2D gantry.
- Documentation: https://fabacademy.org/2022/labs/charlotte/assignments/week12a2/
- Structured out parameter values and general structure of 2D gantry allowing for more concrete design.
- Designed wood bed for base of machine, y-axis carriage, and corner connectors and assisted design of main x-axis carriage.
- Organized Home Depot run for parts after realizing a mistake in ordering resulting in meeting the 3-week deadline.
- Wrote code to get API data and firmware to move gantry to x, y position.

Relevant Coursework

Digital Systems Design: CMOS logic design principles; Finite state machine; Single cycle datapath

Activities

Robojackets | Member *Fall 2023 – Present*
- Used Rust's embedded HAL framework to write firmware to drive peripherals