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EDUCATION

University of Maryland, College Park **Graduated** May 2023
B.S. Physics
College Park Scholars

RELEVANT SKILLS & COURSEWORK

* PHYS165 - Programming and Modeling in Physics
* PHYS276 - Experimental Physics II (Electricity and Magnetism)
* PHYS375 - Electromagnetic Waves and Optics Lab
* PHYS485 - Electronic Circuits Lab

Languages: Python, JavaScript, C++, HTML, CSS, SQL, MATLAB
Miscellaneous: Django, Git/GitHub, Linux, PostgreSQL, HTTP, AWS S3
Self-Studies: Computer Networking, Data Structures & Algorithms

PROJECTS

Django - Personal Blog https://www.arajashe.blog | https://github.com/ankith860/django_project

* Leveraged the Django Framework to create a personal blog featuring profiles, and posts with full CRUD functionality.
* Designed an effective visual layout with HTML and CSS to display user posts, profiles and interactions clearly.
* Engineered a Python based application server to provide and store information and functionality for the blog, including interactions with a PostgreSQL database and a RESTful API for data transfer via JSON.
* Automated deployment with Git hooks, deploying to a Linode Linux virtual machine host, and providing an Apache HTTP server.

Automated Temperature Data Acquisition to Calculate Electromagnet's Resistance

* Used an Arduino microcontroller, programmed with C++, to drive modulated current through a transistor and read temperature data from a thermistor.
* Fit collected data to equations to calculate the electromagnet's resistance.

Obstacle Avoidance using Arduino Microcontroller

* Programmed an Arduino, using C++, to collect data from Ultrasonic and IR sensors.
* Programmatically analyzed sensor measurements to calculate the distance to various obstacles.

Randomized Projectile Motion Game

* Crafted a Python program to visualize randomized projectile trajectories, utilizing Python data science libraries: (Matplotlib, Pandas, NumPy, and SciPy).
* Instructed players to then guess the values of the variables in the projectile equations using the Position v. Time data from the trajectory

Automated Frequency Measurement for Sodium (Na) Discharge Lamp

* Applied MATLAB to drive a servo-motor and collect data from a photodiode sensor in a Michelson interferometer.
* Calibrated complex laboratory equipment including an interferometer, and a series of reflecting mirrors.
* Automated data visualizations, including Intensity v. Distance plots and calculated the frequencies of the light beam.

WORK EXPERIENCE

Server at Olive Garden **2023**

* Dealt with a fast-paced environment where servers were expected to efficiently and accurately attend multiple tables with guests ordering various items on or off the menu.
* Listened to guests' needs and provided them with a welcoming, fast, and attentive experience.

Mover at Lucia's Fine Furniture Moving Help **2022**

* Disassembled, safely stored and relocated, and reassembled customers' furniture.
* Designed and coordinated moving strategies to efficiently delegate work among other employees.
* Communicated with customers to ensure their satisfaction with the moving operation as well as address their concerns.

Physics Tutor (Volunteer) **2018**

* Created lesson plans for students to improve their understanding of complex physics concepts.

Habitat for Humanity (Volunteer) **2018**

* Volunteered in teams to provide home restoration & construction services for low income families