Mahdi Ali-Raihan

mma2268@columbia.edu | 929-452-8653 | linkedin.com/in/mahdi-ali-raihan | github.com/asder8215 | https://asder8215.github.io/

EDUCATION

Columbia University	**Manhattan, NY**
B.S. Computer Science, 3.68 GPA	Expected May 2025

Relevant Coursework: Data Structure & Algorithm, Advanced Programming in C and UNIX, Advanced Systems Programming, Artificial Intelligence, Introduction to Databases, Natural Language Processing, Computer Graphics

TECHNICAL PROJECTS

Personal Website	*HTML/CSS/JS, jQuery Terminal Emulator*	June 2024 - June 2024

- Personal website emulating a terminal with files on my experience, projects, education, etc.
- Implemented file system in an object-oriented fashion, which supports Regular Files and Directory structures
- Commands for the terminal (cd, ls, pwd, etc.) were created by scratch functioning similarly to the commands on a Linux terminal.

TeXiT	*C, Bash, GTK4, Libadwaita, Blueprint Language for GTK interface, JSON-C*	June 2023 - August 2023

- Simple UNIX-based text editor application with remote editing capabilities
- Developed file save functionality, tab features, GTK signal handlers for tab pages + file action buttons (e.g. new file, open file, save file), and serialization/deserialization of JSON strings for communication between server and clients
- Created installation shell script of TeXiT as a Desktop application

TechPrep	*Kotlin, Android Studio, QuizAPI*	November 2022

- Mobile application that prepares users for technical interviews with multiple choice style programming questions
- Implemented Topics page of the app using Fragments, Adapter, and Recyclerview objects displaying different question categories (e,g, Linux, DevOps, Docker, etc.) and fetched and parsed JSON response from QuizAPI into a database to persist and pass onto following screens via Intents

Name the Game, Spin the Wheel	*Arduino/C++, Embedded Systems, Circuitry*	February 2022 - May 2022

- Group project featuring an user-centric game allowing players to imagine a game (e.g. 21, HighLow, etc.) to play on a spinning wheel numbered 1-8 and press on arcade buttons to start or halt the wheel
- Designed and implemented the circuitry for the arcade buttons to the Arduino board and programmed button presses to initiate and stop the motor

EXPERIENCE

Ceros	**New York, NY**
Quality Engineer Intern	June 2022 - August 2022

- Performed manual testing and ticketed issues through Jira and Google Doc that expedited the resolution of bugs and enhanced quality of Ceros' TextPlus tool
- Created end-to-end automated testing scripts using Webdriver IO, Cucumber, and TypeScript, which assisted Ceros in efficiently finding bugs in their TextPlus and Previewer tools
- Actively worked in a cross functional team setting with Software Engineers, UX/UI Designers, and Product Managers through agile meetings

LEADERSHIP/DEVELOPMENT

Emerging Leaders in Technology and Engineering	**New York, NY**
Education Fellow	October 2021 - June 2024

- Lead a class of 20+ students each year in engaging discussions, teaching fundamentals of Python and complementing it with different topics like hardware with the MicroBit and game development in Pygame
- Ensured that students are completing the projects assigned and clarified material through office hours
- Communicated with teachers and other fellows on the progress of the class after each lesson

CodePath	**New York, NY**
Student	September 2022 - November 2022

- Developed knowledge in Android Development in Kotlin such as working with Layouts, UI Interaction, RecyclerView, APIs and JSON, Fragments, etc.
- Built several projects in Android Studio: Wordle, Wishlist, and Latest Popular Movie Library (using TMDb API)

SKILLS

- Frameworks/Tools: Git, Jenkins, Jira, GTK4, Libadwaita, Blueprint Markup Language (GTK)
- Language Skills: Bash, C/C++, Java, Kotlin, Python, TypeScript, HTML/CSS/JS