

Tariq Achor Zyad

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EDUCATION

The University of Houston, Houston, TX May 2024
College of Natural Sciences & Mathematics
Bachelor of Science, Computer Science

- GPA 3.37

Relevant Coursework:

- Data Structures & Algorithms COSC 3320: Recursion, Backtracking, Dynamic Programming. Fall 2022
- Fundamentals of Operating Systems COSC 3360: POSIX threads, semaphores & mutual exclusion. Spring 2022
- Programming and Data structures COSC 2346: Trees, Graphs, B-Trees, and linear data structures. Fall 2021

EXPERIENCE

The University of Houston, Computer Science Department, Houston, TX August 2022
Academic Support Assistant

- Aiding the course instructor in grading, proctoring, and preparing course materials for COSC 1336.
- Guiding students through the fundamental principles of computational thinking, and computer science.
- Hosting office hours for both one-on-one and group study over basic programs and algorithms in Python.

PROJECTS

- [Dunya Flight Searcher](#)
 - Conceptualized a sleek and approachable front-end for a metasearch web application.
 - Designed a streamlined interface that reflected a personalized user experience for ecommerce.
 - Led the front-end development of Dunya's initial website within 24 hours at **CodeRED Hackathon 2022**.
- [StudyUP](#)
 - Discord.js bot developed in Typescript to promote and organize group study in student-run Discord servers.
 - Implemented a MongoDB database of active users and events using the node.js Mongoose library.
 - Employed Cron scheduling to arrange recurring sessions throughout a semester.
- [Recharge](#)
 - Student-led project that allows the UH community to find group events and activities across campus.
 - Designed using React Native for front-end development and Actix-Web for back-end development.
- [Discord Music Bot](#)
 - A Discord bot written in JavaScript/Node.js using the Discord API via Discord.js and the YouTube API v3.
 - Enqueues song requests received either as a YouTube link or search query from the user.
 - Search YouTube for the first available video to add to the queue, bypassing age restricted search results.
 - Includes a fully functioning queue, as well as looping, skipping, and pausing commands.
- [Personal Portfolio Website](#)
 - Created using basic HTML and TailwindCSS with key UI/UX principles in mind.
 - Wireframed design with an easily accessible, intuitive, and user-friendly layout.
- **Multithreaded Parallel Fixed-length Code Decompressor (COSC 3360 Assignment)**
 - Multi-threaded Parallel fixed-length code decompressor, using a mutex semaphore and conditional variable to prevent thread interference on a single memory address.
 - Written in C++ on Windows Subsystem for Linux.
 - Utilizes C++ POSIX threads for multithreading.

SKILLS

Languages: TypeScript, JavaScript, Python, HTML/CSS, C++, Java, MongoDB

Frameworks: Next.js, TailwindCSS, Node.js, React.js

Libraries & APIs: Discord.js, Mongoose, YouTube API v3, Duffel API,

HONORS AND AWARDS

- *College of Natural Science and Mathematics Dean's List for Fall 2020*
- *College of Natural Science and Mathematics Distinguished Scholars List for Spring 2021*