

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)
- Intro. Automata & Computability COSC 3340: DFA/NFA, Automata, Turing Machines. (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

- **[GambaBot \(CSLotto\)](#):**
 - A mock-gambling and mini-games Discord bot coded in Java using Java Discord API (JDA), and MongoDB.
 - Featured an interactive inventory and shopping system using JDA button interaction and message embeds.
 - Employed the use of multiple MongoDB collections in order to create, update, and manage user data.
- **[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.
- **[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 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](#):**
 - Designed using basic HTML and Tailwind-CSS 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

Technical /Computer Skills: Advanced C++, Advanced Java, Basic Typescript, Basic JavaScript, Basic MongoDB, Git

Languages: Fluent English

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*