Matayay Karuna

(719)-480-1645 | matayaykaruna@gmail.com | Boulder, CO

matayay.com | github.com/matayay | linkedin.com/in/matayay

EDUCATION

University of Colorado Boulder — Boulder, CO
Bachelor of Science in Computer Science | GPA: 3.61 — *Aug. 2022 – May 2026*

Relevant Coursework: Data Structures, Intermediate Web Development, Computer Systems, Database Systems, Software Development Methods and Tools, Intro to Data Science, Intensive Programming Workshop, Algorithms, Operating Systems

EXPERIENCE

Student Software Engineer — June 2023 – Present
CU LAIR Lab — *Boulder, CO*

- Fullstack Engineer responsible for developing a website to interface, monitor, and retrieve data from DAQ sites measuring VLF radio waves
- Made use of Next.js and Tailwind.css to create front-end and build responsive UI
- Leveraged AWS services including API Gateway, Lambda, and Dynamodb to create a websockets API which allows bidirectional communication between website and DAQ sites in under 1 second
- Setup and maintained a PostgreSQL database consisting of multiple tables that can be joined for the backend
- Developed REST API using Express.js to link up website, database, and a Network Attached Storage server (NAS)

PROJECTS

Checkers | C++, Qt — April 2024 - May 2024

- Two player checkers game that alternates between each sides turn after every move
- Supports chain attacks. Game ends when one player wins or when no moves are possible
- Developed game logic in C++, implemented GUI using Qt Creator

Personal Website | SvelteKit, Tailwind, Typescript — June 2023 – July 2023

- Created a personal website to serve as a portfolio and to illustrate my experience
- Implemented transition animations on page load and scroll

Star Wars Hub | Firebase, React, Tailwind, Typescript — April 2023

- Developed a Star Wars themed forum site that allows for the creation, editing, and deletion of posts
- Each post can be liked and commented on and contains a title, image, and subtitle
- Wrote CRUD functions that connect to a Firestore Database to manage post storage

Where's Waldo? | CSS, Firebase, React, TypeScript — March 2023

- Created a Where's Waldo photo tagging app
- Built an algorithm to calculate (X, Y) coordinates of Waldo, The Wizard, and Odlaw
- Implemented distance formula to calculate the proximity of a user click to a character
- Fetches from a Realtime Database to get the data on where the characters are

Calculator | CSS, HTML, JavaScript — December 2022

- Created a standard calculator using vanilla JavaScript
- Includes the same operations as the default iOS calculator

Dungeon Escape | C++ — November 2022 – December 2022

- Built a text based dungeon escape game that runs in the terminal
- Allows the user to create a party of characters to traverse the dungeon with
- Functionality includes a terminal generated map that can be moved through
- User must clear five rooms of enemies and make it to an exit to win

TECHNICAL SKILLS

Languages: Assembly x86-64, C/C++, CSS, HTML, Javascript, Python, SQL, TypeScript
Frameworks: Bootstrap, Express.js, Next.js, React, Sveltekit, Tailwind.css
Databases: Dynamodb, Firebase, MySQL, PostgreSQL, Supabase
Technologies: AWS Lambda, Docker, Git, HTTP, Node.js, VSCode, WebSockets
Other: Agile Methodology, Communication Skills