

Aryaan Khan

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EDUCATION

Yale University | New Haven, CT

Expected Graduation: May 2024

B.S. in Computer Science, Certificate in Data Science

Cumulative GPA: 3.92

Coursework: Data Structures, Algorithms, Full Stack Web Programming, Distributed Systems, Systems Programming and Computer Organization, Discrete Mathematics, Probability Theory, Multivariate Statistics

EXPERIENCE

Incoming Software Engineer Intern at Savvas Learning Company

June 2023 – August 2023

Student Web Developer | Yale Computer Society

August 2022 – Present

- Collaborate with a team of 15+ student developers on the development and maintenance of CourseTable, a platform for exploring course information, demand statistics, and evaluations
- Contributed towards the growth of the website, resulting in 6000+ users and becoming students' primary tool for course planning
- Implemented the UI and API integration for a course workload calculator using React.js, Python, and GraphQL

Research Assistant | Yale School of Medicine

June 2021 – Present

- Analyze genetic datasets and identify potential molecular mechanisms that lead to neurodegeneration by building statistical models using Python, Pandas, and R
- Developed a Python program that efficiently parses large genetic datasets, generates gene models, and illustrates differentially expressed gene graphs, automating 75% of data analysis for all research projects in the lab
- Co-authored two peer-reviewed scientific papers in reputable journals, working closely with lab members to design the experiments, anticipate pitfalls, and brainstorm effective solutions

PROJECTS

New York Travel | SQLite, Express, Node.js, React.js

- Developed a full-stack web application that allows users to create itineraries for trips to New York, implementing user registration and constructing a comprehensive database to store user information, destination data, and itinerary details
- Enhanced the user experience by incorporating visually appealing and interactive timeline features that display the itinerary in a clear and concise manner
- Facilitated a convenient travel experience by providing direct links to flight and train booking sites based on their selected travel dates, enabling users to book their travel arrangements efficiently from the website

Spotifeel | Python, Flask, HTML, CSS

- Built a web application that generates a custom Spotify playlist for users based on their selected mood, considering song attributes such as danceability, energy, and tempo
- Implemented customizable features such as specifying song count, playlist title, and exclusion of explicit songs
- Designed an intuitive UI with HTML and CSS, and integrated user authentication with Flask and the Spotify API

Memory Allocation Debugger | C

- Developed a debugging wrapper for memory allocation in C, which tracks active heap usage, memory leaks, and heaviest memory allocators in a program
- Constructed an advanced reporter that protects against integer overflow, common programming errors (invalid/double frees), and write error detection past allocated memory boundaries

Gallery and Message Forum | ReactJS, SQL

- Built an interactive website for a friend's birthday utilizing ReactJS which illustrates a timeline and gallery of images, as well as a message forum for registered users
- Implemented username, email, and password authentication with Google Firebase, allowing users to create an account and post birthday messages, which are stored using Firebase's integrated database

SKILLS

Languages: Python, C, C#, HTML, CSS, JavaScript, Go, SQL, R

Technologies: React.js, Node.js, Express, GraphQL, Flask, REST APIs, Git/GitHub, SQLite, Jupyter Notebook, Pandas, Unity

Characteristics: Problem Solving, Collaboration, Communication, Time Management, Determination