S. M. Ali Murtaza Jaffery

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EDUCATION

The University of Hong Kong   **September 2019 – May 2023**

- Bachelor of Engineering in Computer Science - Full Scholarship for 4 Years - CGPA 3.62/4.30.
- Dean's Honors List for the academic year 2019-2020.

WORK EXPERIENCE

SnapEx   **June 2021 - August 2021**

- Developed an Order Management system (with 80% unit testing using pytest) to manage trading statistics, order flow (with priority given to liquidation orders) and handle order exceptions by extensive logging and sending instant notifications using the Telegram bot (Python, SQL, MariaDB).
- Removed the need for manual movement of funds between different subaccounts by implementing an auto-balancing system which constantly monitors available equity in company subaccounts. If percentage equity in any account reaches the prescribed threshold, an emergency response will be activated within 0.75 seconds (to balance it to the predefined initial level).
- Integrated a third-party API to fetch market data of several underlyings and conflated the trade data for different tokens to 1 second.
- Designed and created a dashboard to assist the risk manager in getting real time user data (to understand leverage patterns, number of contracts traded for each underlying) and percentage available equity in all company trading accounts (React, Python Flask, MariaDB, chakra UI).

StudentBase Limited   **March 2021 – July 2021**

- Implemented a waitlist on the server side for the new StudentBase (Prisma, GraphQL, Apollo Server).
- Designed and developed a page to show incorrect question attempts of users so they can analyze their weaknesses (React, Typescript, GraphQL, Apollo Client).
- Revamped the main page containing all available papers to help users differentiate attempted papers from the unattempted ones (React, Typescript, GraphQL, Apollo Client).
- Modified authorization rules to enable site admins to securely access past paper attempts of all users so that they can analyze user behavior (GraphQL, Apollo Server).
- Wrote tests for authentication, authorization and output for the above using jest.

Foundation for Shared Impact   **February 2021 - April 2021**

- Reduced more than 60 man-hours by automating the payment and scraping of Annual Returns and Financial Statements of government recognized charitable organizations from the ICRIS website using Selenium.
- Used BS4 to scrape address, staff information, governance, and objectives of more than 500 Hong Kong based charities from the HKCSS website.

PROJECTS   *See more at* https://alimurtaza.dev/

Trivia Based Gameshow

- A text-based game to emulate the trivia gameshow using C++. Included few rounds of the famous gambling game called "Lucky 7" along with a round of rapid-fire questions.
- Used Dynamic Memory management to display questions in the rapid-fire round based on user input.
- Allowed users to load previous data using File I/O.
- Created a Make File to organize code compilation and increase efficiency.

User Interactive Forum

- A social platform where users can interact with each other and find answers to their queries. (React, Express.js and MongoDB).
- Created registration and login pages in order to customize user experience and allow them to retrieve their stored data.
- Included several features such as searching, and filtering questions based on the topic or by entering certain keywords.

SKILLS AND TECHNOLOGIES

Languages: Python, Typescript, JavaScript, C, C++, Java, SQL, CSS

Tools & Frameworks: React, GraphQL, Next.js|Node.js & Express, Flask|Prisma

ADDITIONAL

- Student Teaching Assistant for the course ENG 1340 (C++, C and Linux).
- A full score of 2400/2400 in SAT Subject Tests (Math level II, Physics and Chemistry).
- Straight 9A* in Cambridge O levels and straight 4A* in Cambridge A levels