AASHER AKHLAQUE

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EDUCATION

University of Michigan – Ann Arbor   Ann Arbor, MI
Bachelor of Science in Computer Science and Mathematics | **GPA: 3.81/4.00**   Sep 2019 – Apr 2023
University Honors List 2019, 2020
Relevant Coursework:
- *EECS*: Web Systems, Data Structures and Algorithms, Foundations of Computer Science
- *MATH*: Linear Algebra, Multivariable & Vector Calc, Discrete Mathematics, Probability and Statistics

WORK EXPERIENCE

Teaching Assistant for Data Structures and Algorithms   Ann Arbor, MI
The University of Michigan EECS   Jan 2021 – Present
- Teach a class of 900+ students by holding office hours to explain and demonstrate algorithms for projects, answering conceptual questions on Piazza and during lectures, and formulating exam content.
- Lead a weekly discussion section for lecture review with 50+ students enhancing students' understanding on concepts including hash tables, trees, graph algorithms, and dynamic programming.
- Upskill students with best coding practices, optimizing algorithms, and effective debugging strategies.

Web Developer   Ann Arbor, MI
The Michigan Daily   Sep 2020 - Present
- Maintain and progress the digital products of The Michigan Daily including the Daily website using tools including React, React Native, AWS, Trello.
- Expand the GradeGuide (https://gradeguide.com) to 100,000+ uses by creating a more user-friendly experience through increased user-contributed content.
- Collaborate with a team of 10+ developers to develop native mobile applications to extend the accessibility of the Daily news to mobile platforms.

PROJECT EXPERIENCE

Instagram Clone   Feb 2021
- Used Flask to render Jinja2 templated HTML files by routing, connecting to, and gathering data from SQLite database with stored user logins, passwords, posts, likes, comments etc.
- Secured passwords from rainbow table attacks by using Salt cryptography while storing in the database.

University of Michigan Major Audit   July 2020 – Aug 2020
- Developed an online web application to provide interactive visualizations using React.js and D3js to students about their progress in CS major based on the courses they have already taken and/or will take.
- Assembled a database with details of 4600+ courses offered by LSA by web scraping with Python and SQL to extend the application to other majors.

Space Invaders and Brick Car Racing   Dec 2019
- Constructed working interactive models for the 2 games using potentiometers, LCD display, and Arduino UNO.
- Refined the C++ code by 2100 bytes, increased the efficiency by 43%, tested and fixed 10+ bugs for smooth play.

LEADERSHIP EXPERIENCE

Database Administrator   Lahore, PAK
Coalition of Pakistani Students US   May 2020 - Present
- Supervisor and mentor for the database committee responsible for planning, collecting, cleaning, and storing the data from 500+ members of the organization.
- Designed and developed the Coalition website (https://pakuscoalition.org) using HTML, CSS, and JavaScript extending outreach to 29+ states in the US.

SKILLS AND AWARDS

- **Software:** C++, Python, JavaScript, SQL, Flask, MongoDB, MATLAB, React, Flutter, Dart, HTML5, CSS3
- **Spoken languages:** English, Hindi, Urdu, Punjabi, Arabic
- **Top in the World Distinction** in Cambridge International Mathematics