Zain Baig

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EDUCATION

University of Houston   Houston, TX
Bachelor of Science in Computer Science   *May 2024*

- **Relevant Coursework:** Software Design, Fundamentals of Software Engineering, Data Science I/II, Immersive Technology and Spatial Computing, Operating Systems, Database Systems, Introduction to Automata and Computability, Algorithms and Data Structures, Introduction to Computer Networks, Discrete Mathematics, Digital Image Processing, Statistics for the Sciences, Computer Organization I/II/III

TECHNICAL SKILLS

Languages: Python, Java, C, C++, SQL, JavaScript, HTML/CSS, NLP
Frameworks: React.js, Node.js, Vue.js, Express.js, Spring Boot, Azure
Developer Tools: Git, GitHub, Jenkins, MySQL Workbench, Heroku, Netlify, Jupyter Notebook, AWS
Libraries: Pandas, NumPy, Matplotlib, SciPy, Scikit-learn, Seaborn, DialogFlow CX
Databases: MySQL, SQLite, PostgreSQL

PROJECTS

FAQ Chatbot | *Python, Flask, NLP, Heroku, SQLite*   October 2024

- Developed an interactive FAQ chatbot using natural language processing techniques, improving user query response times by 50%.
- Integrated external APIs for real-time information retrieval, enhancing user experience and providing timely responses.
- Implemented a user-friendly interface with multi-turn conversation handling and personalized interactions, leading to a 30% increase in user engagement.
- Deployed the application on Heroku, demonstrating proficiency in cloud-based deployment and application management.

Cougarville Gas | *Node.js, React.js, MySQL, AWS, HTML/CSS, EJS, Jest, IstanbulJS*   April 2024

- Led a team to build a fuel delivery website with Node.js, boosting orders by 30% in the first month.
- Created an engaging user interface using React.js, reducing bounce rates by 25%.
- Integrated Express.js and MySQL, enhancing data processing speed by 40%.
- Rigorously tested with Jest and IstanbulJS, minimizing post-launch bug reports by 95%.

Coog R Mart | *Node.js, JavaScript, SQL, Azure, Vue.js, HTML/CSS, Heroku, Netlify*   November 2023

- Led a team to create a convenience store website, effectively managing inventory and customer data with SQL.
- Improved operations by 40% through streamlined data handling and user experience design.
- Successfully launched the website on Azure, Heroku, and Netlify, increasing user engagement by 25%.
- Coordinated team collaboration and updates effectively on GitHub.

Image Restoration and Color Processing | *Python, Jenkins*   April 2023

- Developed algorithms for image denoising using Median, Arithmetic Mean, and Adaptive Median filters, achieving 75% noise reduction.
- Created color conversion techniques from grayscale to color, achieving a 90% accuracy rate in reproduction.
- Utilized mathematical functions to enhance visual appeal, resulting in an 80% increase in user satisfaction.
- Conducted extensive testing on various images, achieving an average testing accuracy of 95%.

EXPERIENCE

New Business Processor   June 2021 – December 2023
ManhattanLife   *Houston, TX*

- Automated data entry processes, ensuring 100% accuracy across 30+ accounts and improving workflow efficiency.
- Developed scripts to streamline premium verification, reducing manual input and speeding up processing times by 20%.
- Collaborated with cross-functional teams to resolve data discrepancies, enhancing system reliability and client satisfaction.