

SYED ASAD HUSAIN

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EDUCATION

Arizona State University	August 2022 - May 2024
Masters of Science in Computer Science	4.0 GPA
Thapar Institute of Engineering and Technology	July 2016 - May 2020
Bachelors of Engineering in Computer Engineering	8.1 GPA

TECHNICAL SKILLS

Programming Languages: CPP, Java, Python, JavaScript, SQL

Tools/Frameworks: HTML, CSS, D3.js, React.js, Spring Boot, Flask, Spring Cloud, Eureka, MySQL, PostgreSQL, MongoDB, Amazon Web Services (AWS), Cloud, CI/CD, Jenkins, Docker, Kubernetes, Android Studio, Git, Bash

Relevant Courses: Data Structures and Algorithms, Database Management Systems, Data Processing at Scale, Mobile Computing, Distributed Systems, Artificial Intelligence, Operating systems, Computer Vision

PROFESSIONAL EXPERIENCE

Full Stack Developer, upGrad, Bangalore July 2020 – August 2022
Healthcare Monitoring and Consultation Booking Application

- Designed and developed an end-to-end distributed web application serving as a unified healthcare platform.
- Utilized microservices architecture to architect 5+ microservices, enhancing modularity and scalability.
- Implemented 10+ REST API endpoints, leading to a 40% reduction in the average response time.
- Introduced Eureka server layer to abstract API endpoints, optimizing server load balancing and efficiency.
- Orchestrated AWS deployment and established a streamlined CI/CD pipeline via Jenkins.

Task Automation

- Devised and implemented Python scripts, utilizing Selenium for comprehensive automation of program uploads and expert reach-out processes across 15+ verticals.
- Reduced platform upload time from over 6 to less than 1 hour, resulting in 83% time saving.
- Reduced the expert reach-out process from 3 hours to under 10 minutes, achieving 97% time reduction.

Software Intern, upGrad, Bangalore January 2020 – July 2020

- Conceptualized the architectural design for a hotel booking web application.
- Leveraged React.js to accelerate UI redesign, resulting in a 40% improvement in page load times and user engagement.
- Implemented a distributed backend system using Spring Boot to ensure scalability and reliability.
- Integrated MongoDB to handle unstructured data resulting in a 30% reduction in query response times.

ACADEMIC PROJECTS

BigTable Database Management System

- Designed and implemented a scalable Bigtable system optimized for efficient data storage and retrieval.
- Used B-tree indexing to increase data retrieval speeds by 25%, creating a responsive and efficient system.
- Innovated advanced querying, map joining, and sorting mechanisms, and optimized resource utilization by 30% through strategic buffer management.

VAST Challenge Visualizer

- Solved the VAST 2021 Challenge by creating 6 interactive visualizations for user-friendly exploration.
- Transformed raw data into actionable insights, facilitating crisis management analysis and decision making.
- Utilized D3.js library for innovative visualizations and integrated Flask for dynamic data handling.

Image Classifier

- Developed an Android application for capturing and classifying photos via an integrated Flask server.
- Optimized application performance by implementing edge computing and multithreading techniques, resulting in a 40% reduction in image classification time.

Smart Traffic Management System

- Developed a robust and scalable smart traffic management application that monitors real-time traffic conditions and dynamically schedules traffic lights to alleviate congestion.
- Customized the tinyYOLOv3 model, achieving vehicle detection accuracy of 91%.
- Efficiently reduced average waiting time by 25% and increased throughput by 34%, resulting in a 15% reduction in peak-hour congestion.

POSITIONS OF RESPONSIBILITY AND RECOGNITIONS

- Inducted into the Eta Kappa Nu Honors society for IEEE due to distinguished academic performance.
- Received A.S.P.I.R.E. awards at upGrad in recognition of outstanding performance and excellence.
- Promoted to the position of Technical Head at Econ Club, TIET
- Attained the runner-up position at Thapar Inter Campus Hackathon