

MOHAMMAD SHAHREZ MALIK

COMPUTER SCIENTIST



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Forman Christian College (2021-Present)



PROFILE

Experienced software developer proficient in Python, C++, Java, and HTML/CSS. Specializes in AR/VR experiences and Unity 3D game development. Enthusiastic about emerging technologies, expanding expertise in web and game development. Strong collaborator, problem solver, and dedicated to exceeding client expectations. Committed to ongoing education for long-term career goals in web and game development.

EXPERIENCE

VICE PRESIDENT

2023-Present

Association of Computing & Machinery FCCU

Co-managed several team departments and led engaging technical events in collaboration with FCCU's Computer Science department, fostering a vibrant technical community at our university.

JAVA BACKEND DEVELOPER

Jun-Aug 2023

HotelKey Inc

Learned industry-leading frameworks and web services. Delivered efficient patient queuing as well as hotel/employee management systems. Utilized Jax Rs, Springboot, SMTP, Postman, Jakarta, Spring Security, SQL injection, and more.

LEAD DEVELOPER

Aug 2022 -Jun 2023

OmniLife Virtual Reality FCCU

Designed 3D AR filters for Facebook and Instagram and led a VR game development team for a hackathon virtual art gallery project.

TEACHING ASSISTANT

Feb 2023-Jul 2023

Data Structures and Algorithms

Helping students understand complex data structures concepts, aiding in lab sessions, organising and grading assignments.

TEACHING ASSISTANT

Sep 2022-Jan 2023

Software Engineering

Assisted students in software engineering course with coding and debugging, graded assignments and provided feedback, and led lab sessions.

SKILLS

- Python/C++/Java
- Jax-RS
- Javascript/HTML/CSS
- Springboot
- Unity 3D game| AR/VR
- MetaSpark Studio
- AWS Services (S3,SNS,SQS)
- MySQL/SQL
- JBDC/Hikari
- Maven
- Bootstrap

KEY PROJECTS

Hospital Patient Queue System | Java SpringBoot Web App

Developed using Java SpringBoot, Apache Tomcat Servlet (Jakarta), AWS services (including SQS through localstack and Docker), secure log storage in Amazon S3 Buckets. Designed frontend pages with HTML, CSS, and JavaScript. Established database connections using JDBC and MySQL. Implemented patient email notifications through Gmail SMTP and comprehensive CRUD operations. Strengthened with basic Auth and Spring Security configurations.

Employee Management System | REST Application

Developed with Java and the Jax-Rs framework, integrated seamlessly with a MySQL database, managed using Maven. Designed front-end interface with JavaScript, HTML, and CSS. Created RESTful APIs. Web deployment with Apache Tomcat servlet (Jakarta). Implemented logging with the Log4j framework. Tested with JUnit and Mockito.

Hackathon XR event with virtual art gallery project | Unity 3D

Collaborated with a team to develop a virtual art gallery using real paintings made by students with Unity VR development, as part of a large scale hackathon XR event.

Image Recognition Project using TensorFlow | Python

Trained and tested neural network models on a large dataset of images to classify objects accurately.

Created a user-friendly GUI to allow easy image input and output of results

Pharmacy Management System using Tkinter GUI | Python OOP

Implemented features such as stock management, prescription tracking, and patient record-keeping. Tested and refined the system to ensure high reliability

Search Engine Development and Optimization | Data Structures

Developed using Python and data structures such as hash tables, linked lists and searching algorithms. Evaluated and optimized the search engine's performance.

Healthcare Management System MySQL | Database Systems

Implemented a relational database using MySQL to store and manage healthcare data. User-friendly interface for healthcare professionals

Fetal Health Classification CTG Data | Artificial Intelligence

Analyzed CTG data using K-Means clustering for fetal health indicators and classification models. Trained and tested multiple machine learning models for predicting fetal health outcomes

2048 Game Development | C++

Designed and implemented a console-based version of the popular game 2048 using C++. Implemented game rules, score-keeping, and user-friendly interface for game play