Sohaib Mushtaq

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Results-driven Machine Learning Engineer with expertise in statistical analysis and machine learning algorithms, skilled in using Python, SQL, Tableau, and Power BI to develop and evaluate models that drive impactful decisions. Experienced in deploying models to address real-world problems, optimizing performance, and delivering insightful visualizations to stakeholders. Committed to continuous learning and innovation in solving complex challenges in machine learning.

EDUCATION

HITEC UNIVERSITY | *Bachelor of Computer Science*   Taxila, Pakistan|07/2020 – 07/2024

SKILLS

☐ **Data Analysis & Visualization Tools**	Tableau, Power Bi, Excel
☐ **Databases**	MySQL, SQLite, Mongo DB
☐ **Big Data Frameworks**	Hadoop, Apache Spark
☐ **Programming Languages**	Python, C++, HTML, CSS, C#, JavaScript (React.js, Node.js)
☐ **Data Mining Techniques**	KNN, Apriori etc
☐ **Data Science Libraries & NLP Libraries**	Pandas, Numpy, Matplotlib, Seaborn, Tensor Flow, Scikit learn, PyTorch, Keras

Experience

MERN STACK DEVELOPER
ClickMasters (16 months)
28/3/2024 – Present

- Developing and maintaining full-stack web applications using MongoDB, Express.js, React.js, and Node.js.
- Collaborating with front-end and back-end teams to design scalable, responsive user interfaces and robust APIs.
- Integrating third-party services and databases to enhance application functionality.
- Participating in code reviews, debugging, and optimizing performance across the MERN stack.

DATABASE MANAGEMENT INTERN
SoftonHost (3 months)
15/06/2023 – 15/09/2023

- Optimized database performance through efficient query handling and storage management.
- Worked with MySQL, SQLite, and MongoDB for database development and maintenance. ☐
- Gained experience in managing large datasets and tuning query performance.

Certification

Mobile Application Development (NAVTTC)

Majors

- Data Science, Data Mining, Big Data
- Artificial Intelligence
- Machine Learning
- Deep Learning

Projects

1. Tunnel Farming Automation and Optimization System *(Final Year Project – IGNITE Funded)*

- Developed an IoT-based automation system for tunnel (polytunnel) farming to improve agricultural productivity and reduce manual labor.
- Integrated sensor networks to monitor temperature, humidity, light intensity, and soil moisture.
- Designed data-driven algorithms for automated irrigation, pest control, and fertilizer scheduling.
- Built an actuation system for irrigation, shading, and ventilation.
- Enabled real-time monitoring and control via web and mobile applications for remote farm management.

2. Ideal Crop Prediction System

- Designed a machine learning-based crop recommendation system using SVM, KNN, Random Forest, and Decision Tree classifiers.
- Trained models on environmental factors such as nitrogen (N), phosphorus (P), potassium (K), rainfall, and soil pH.
- Delivered accurate crop suggestions based on user inputs for agricultural decision-making.

3. Skin Disease detection using YOLOv8 model

- Built a real-time image classification tool for identifying skin diseases using the **YOLOv8** model.
- Collected and annotated a diverse dataset of skin conditions.
- Developed a user-friendly application for early disease detection to assist healthcare professionals.

4. SAAS Based CRM:

- Designed and developed a customer relationship management (CRM) system as a SaaS solution using the **MERN stack**.
- Implemented core features such as user authentication, client data management, task tracking, and analytics dashboards.
- Enabled multi-tenant architecture for scalable client onboarding.
- Used RESTful APIs for seamless communication between front-end and back-end.
- Integrated MongoDB for dynamic data storage and optimized schema design for performance.
- Applied responsive design principles for a user-friendly UI/UX across devices.

5. SaaS-Based eCommerce Application *(In Progress)*

- Designing a SaaS-based multi-vendor eCommerce platform using the **MERN stack**.
- Features include product catalog management, shopping cart, secure checkout, vendor-specific dashboards and order tracking.
- Integrating third-party payment gateways and building scalable APIs for future feature extensions.
- Emphasis on modularity, mobile responsiveness, and cloud deployment for high availability.