

SYED KAZIM HAIDER

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<https://github.com/syedkazim110?tab=repositories>

## Professional Summary

Highly motivated Artificial Intelligence student with a strong foundation in machine learning, deep learning, and software development, seeking a Software Engineering Intern position to contribute to AI-powered solutions. Proven ability in developing and optimizing AI models, data preprocessing, and creating predictive analytics, with a specific interest in healthcare and medical applications, including a final year project focused on dental AI. Eager to apply and expand skills in a fast-paced startup environment, working with cutting-edge AI technologies and modern software stacks.

## Skills

**Programming & Development:** C++, Python, Node.js, OOP, Data Structures, Algorithms, Databases, Computer Networks, Operating Systems

**AI/Machine Learning:** Machine Learning, Deep Learning, CNNs, GANs, Natural Language Processing (NLP), Computer Vision, Scikit-Learn, TensorFlow, AutoML H2O, Predictive Analytics

**Data Science & Tools:** Pandas, NumPy, Data Cleaning, Feature Engineering, Data Plotting & Analysis, OracleSQL, Microsoft Office

**Web & Blockchain (Foundational):** Hardhat, Remix, MetaMask (Demonstrates understanding of distributed systems and development)

**Core Skills:** Problem Solving, Analytical Reasoning, Critical Thinking, Team Collaboration

## Work Experience

**Machine Learning (ML) Intern** | Kairiz Cyber Technologies (Remote)

June 2024 – July 2024 (6 weeks)

- \* Contributed to **model optimization** across various machine learning tasks.
- \* Conducted extensive **data preprocessing and feature engineering** to enhance model performance.
- \* Assisted in developing **predictive analytics solutions** leveraging diverse AI techniques.

## Projects

**DentalAI** (Final Year Project)

- \* Developed a **CNN-based deep learning model to predict dental angles from X-ray images**, designed to assist dentists with automated dental analysis.
- \* Processed medical imaging data, ensuring aspect ratio consistency for robust model training.
- \* Implemented supervised learning utilizing MSE loss and the Adam optimizer.
- \* Evaluated model performance using MAE, RMSE, and R<sup>2</sup> metrics.

**Disease Prediction**

- \* Built and deployed an **ML model for disease prediction** using patient data.

\* Implemented advanced algorithms and **data preprocessing techniques**, showcasing AI's potential in early diagnosis and medical applications.

### **Classification of Lung Abnormalities Using CNN**

\* Implemented 3D **CNNs for medical image classification**, specifically focusing on deep learning for pulmonary health diagnosis.

\* Achieved improved accuracy in detecting lung abnormalities from medical images.

### **Text to Image Synthesis using Conditional GANs**

\* Explored **Generative Adversarial Networks (GANs)**, implementing GAN architectures and experimenting with synthetic data generation.

\* Gained insights into adversarial training and generative modeling, fueling curiosity for advanced machine learning techniques relevant to content generation.

### **Injury Prediction in Competitive Runners**

\* Developed **predictive algorithms to assess injury risk in athletes**.

\* Utilized **data analytics and feature engineering** for risk factor identification, highlighting AI's role in proactive healthcare and performance enhancement.

### **AQI (Air Quality Index) Prediction**

\* Conducted Web Scraping and **exploratory data analysis**.

\* Applied **AutoML H2O and other ML models for prediction**, enhancing data-driven decision-making for air quality monitoring.

### **Decentralized Identity System**

\* Developed a blockchain-based identity verification system, deploying smart contracts using Remix, Hardhat, and Ethereum Testnet.

\* Ensured secure and efficient blockchain interactions, demonstrating proficiency in distributed system development.

## **Education**

**Ghulam Ishaq Khan Institute of Engineering Sciences and Technology | Topi, Pakistan**

**Bachelor of Science in Artificial Intelligence | Graduation Date: June 2025**

\* **Relevant Coursework:** Deep Neural Network, Machine Learning, Computer Vision, Natural Language Processing, Data Structures, Algorithms, OOP, Operating Systems, Databases, Parallel & Distributed Computing, Computer Networks, Statistics

\* **Certifications:** Advanced Learning Algorithms, Supervised Machine Learning by Deeplearning.AI