

SYED KAZIM HAIDER

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

## Professional Summary

Highly motivated and results-oriented **Software Engineering Intern** with a Bachelor of Science in **Artificial Intelligence** and practical experience in **Machine Learning**, **Deep Learning**, and **Computer Vision**. Eager to apply strong analytical and problem-solving skills to develop **AI-powered** solutions, with a particular interest in medical and **dental applications**. Proven ability to work with **Python** and **Node.js**, passionate about learning new technologies including **ReactJS**, **Next.js**, **LLMs**, and **RAG pipelines** to build innovative platforms.

## Skills

**Programming Languages:** Python, C++, Node.js

**AI/Machine Learning:** Machine Learning, Deep Neural Networks, TensorFlow, Scikit-Learn, CNNs, GANs, AutoML H2O, Natural Language Processing, Computer Vision, LLMs (familiar with concepts, eager to learn OpenAI, Anthropic), RAG pipelines (eager to learn Pinecone, Vector DBs)

**Data Tools & Analysis:** Pandas, NumPy, Data Cleaning, Feature Engineering, Data Plotting & Analysis, Web Scraping

**Development & Cloud:** Node.js development, API Integration, Microsoft Office, OracleSQL, Hardhat, Remix, MetaMask, AWS (eager to learn deployment & management)

**Frontend (Eager to learn):** ReactJS, Next.js, Tailwind CSS

**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.
- \* Executed **data preprocessing** and **feature engineering** to enhance model performance.
- \* Assisted in developing **predictive analytics** solutions leveraging **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 accurate model training.
- \* Implemented supervised learning with MSE loss and Adam optimizer for robust model training.
- \* Evaluated model performance using MAE, RMSE, and R<sup>2</sup> metrics.

**Classification of Lung Abnormalities Using CNN**

- \* Implemented 3D CNNs for **medical image classification**, focusing on pulmonary health diagnosis.
- \* Achieved improved accuracy in detecting lung abnormalities through **deep learning** techniques.

### Text to image Synthesis using Conditional GANs

- \* Explored Generative Adversarial Networks (**GANs**) and implemented GAN architectures for synthetic data generation.
- \* Gained insights into adversarial training and generative modeling, deepening understanding of advanced **AI techniques**.

### Disease Prediction

- \* Built and deployed an **ML model** for disease prediction using patient data, showcasing **AI's potential in early diagnosis and medical applications**.
- \* Implemented advanced algorithms and **data preprocessing** techniques for accurate predictions.

### Injury Prediction in Competitive Runners

- \* Developed **predictive algorithms** to assess injury risk in athletes, utilizing **data analytics** and **feature engineering**.
- \* Highlighted **AI's role in proactive healthcare** and performance enhancement.

### AQI (Air quality index) Prediction

- \* Conducted Web Scraping and exploratory data analysis to gather and prepare data.
- \* Applied AutoML H2O and other **ML models** for air quality prediction, enhancing data-driven decision-making.

### 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 full-stack development capability.

## 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