

Mohammad Saquib Daiyan

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SUMMARY

Machine Learning enthusiast and aspiring AI Engineer with diverse experience in ML, deep learning, and web development. Contributing to research projects at IISER Bhopal and IIT Kanpur, focusing on signal analysis, medical image classification, and healthcare AI. Published open-source library for biomedical signal processing and developing innovative solutions in regional language AI. Demonstrated strong skills in improving ML model performance, achieving significant enhancements in detection accuracy.

EXPERIENCE

ML and Backend Engineer

November 2024 - Present

Zensible

Remote

- Developing a healthcare AI system for mental health professionals in India
- Building voice transcription system using OpenAI's Whisper for therapy session analysis
- Implementing custom diarization for therapist-patient conversation differentiation
- Creating SOAP notes generation system optimized for Indian languages and accents
- Architecting specialized ML models for mental health assessment tailored for Indian context

Mobile App Development Intern

September 2024 - November 2024

Dhobi G

Location TBA

- Contributing to the development of a mobile application for Dhobi G
- Implementing key features and functionality using Flutter and Firebase
- Gaining hands-on experience in app development and project management

Signal Analysis and ML Research Intern

May 2024 - July 2024

IISER Bhopal - SIRL Lab

Bhopal

- Working on emotion detection using multimodal signals (GSR, EDA, PPG) under DR. Haroon's guidance
- Developed and published NeuroKit-Eda-Analysis, a Python library for EDA signal processing
- Implementing CNN 1D, LSTM networks, and Fourier Transform for advanced signal analysis
- Created comprehensive signal processing pipelines achieving significant accuracy improvements
- Applying statistical analysis including ARIMA, GARCH models for time series forecasting

Frontend Intern

June 2024 - July 2024

Ministry of Education, India

Delhi

- Developed responsive interfaces for government education platforms using React
- Improved user experience satisfaction scores by 25% during internship period
- Featured on ministry's implementation team page for significant contributions
- Implemented secure data handling practices for sensitive educational information

CNN Architecture Intern

June 2023 - July 2023

IIT Kanpur

IIT Kanpur

- Developed CNN architectures for retinal image classification in medical diagnostics
- Collaborated with healthcare experts to improve diagnostic accuracy
- Implemented advanced deep learning techniques for medical image analysis
- Applied deep learning algorithms to analyze and classify retina images

<div>2024</div>	<div> AI-Powered Smart Hospital Management System <i>Healthcare, Machine Learning, Web Development</i> </div> <ul style="list-style-type: none"> Developed comprehensive hospital management platform integrating AI for patient care Implemented medical AI chat system with symptom analysis and clinical decision support Created medical report analysis for blood tests and X-ray images with abnormality detection Designed responsive dashboard with vital signs monitoring and health assessment tools Preview Link: https://health.saquib.in 	
<div>2025</div>	<div> WebLLM <i>ML, AI, GEN AI</i> </div> <ul style="list-style-type: none"> Developed WebLLM solution for client-side AI inference, ensuring data privacy Optimized large language models for browser-based execution with minimal latency Implemented memory-efficient techniques for running AI models on resource-constrained devices Created framework allowing users to utilize AI capabilities without data leaving their device Preview Link: https://llm.saquib.in/ 	
<div>2024</div>	<div> Live Stream Emotion Detection <i>Computer Vision, Frontend Development</i> </div> <ul style="list-style-type: none"> Built real-time emotion detection system for video streams using face-api.js and hls.js Implemented detection for seven emotions (neutral, happy, sad, angry, fearful, disgusted, surprised) Created visual feedback with colored bounding boxes and detailed emotion probability statistics Optimized for performance with configurable detection frequency and input resolution Preview Link: https://livestramemotionanalysis.saquib.in 	
<div>2024</div>	<div> Voice and Text Emotion Analysis <i>NLP, Speech Processing</i> </div> <ul style="list-style-type: none"> Developed multimodal emotion detection system analyzing both text content and voice patterns Implemented speech processing pipeline for tone, pitch, and vocal feature extraction Created NLP models for sentiment and emotion classification from textual content Integrated system with communication platforms for real-time emotional intelligence Preview Link: https://emotion.saquib.in 	
<div>2023</div>	<div> Tamil Language Model (LLM) <i>Natural Language Processing, Deep Learning</i> </div> <ul style="list-style-type: none"> Building a large language model for Tamil from scratch without fine-tuning existing models Implementing custom tokenization for Tamil script and handling complex sandhi rules Developing specialized evaluation metrics for grammatical correctness Using distributed computing on GPU clusters for efficient training 	
<div>2023</div>	<div> Home Cloud Platform <i>Cloud Computing, Security</i> </div> <ul style="list-style-type: none"> Developed private cloud solution using Raspberry Pi for data sovereignty Implemented security measures to prevent unauthorized AI model training Created secure remote access system with robust authentication Ensuring complete data privacy and control for users 	
<div>2024</div>	<div> NeuroKit-Eda-Analysis Library <i>Signal Processing, Python Development</i> </div> <ul style="list-style-type: none"> Published open-source library for EDA signal analysis on PyPI Implemented advanced signal processing techniques for psychophysiological data Created comprehensive documentation and usage examples Facilitating research in affective computing and biosignal analysis 	
<div>2023-2024</div>	<div> Healthcare Projects <i>Computer Vision, Deep Learning</i> </div> <ul style="list-style-type: none"> Developed U-Net based image segmentation model achieving 85% mean IoU Implemented YOLO-based object detection for medical imaging Created virtual mouse system with 95% gesture recognition accuracy using MediaPipe Developed Flutter app for café order management with AWS deployment 	

TECHNICAL SKILLS

Languages: Python (Advanced), JavaScript (Intermediate), Java, C++, C
AI/ML: TensorFlow, PyTorch, Scikit-learn, Keras, CNN, LSTM, ARIMA, GARCH, Whisper
Signal Processing: EDA Analysis, GSR Processing, Fourier Transform, Time Series Analysis
Web Technologies: React, Next.js, Node.js, HTML, CSS
Cloud & DevOps: AWS, Docker, Firebase, Raspberry Pi
Mobile Development: Flutter, Dart
Other: Git, RESTful APIs, Agile, CUDA, GPU Computing

EDUCATION

B.Tech in Computer Science (Minor in IoT) 2022 - 2026 (Expected)
SRMIST, Chennai CGPA: 9.21

LEADERSHIP & INVOLVEMENT

Head Technical Lead - Institute of Innovation and Entrepreneurship (IIE) 2024 - Present
SRMIST

- Leading a team of 20+ students in developing technological solutions for campus startups
- Established an AI/ML innovation lab supporting 5+ student startup projects
- Organized monthly entrepreneurship workshops focusing on tech implementation
- Mentored 10+ student entrepreneurs in technical architecture and deployment

Technical Lead - Tech Vayuna, SRMIST May 2024 - Present

- Leading ML and web development initiatives
- Organized two successful hackathons
- Built and trained team members in advanced technologies

Technical Member - GDSC SRMIST 2023 - Present

- Created and led dedicated Machine Learning team
- Conducted technical workshops and training sessions
- Delivered sessions on "Exploring Data: From EDA to Model Deployment"

COMMUNITY ENGAGEMENT

Technology Volunteer - Social Warrior NGO 2023 - Present
Patna, Bihar

- Developed and implemented basic programming courses benefiting 100+ underprivileged students
- Created digital literacy curriculum covering basic computer skills to web development
- Organized weekly coding workshops and technical training sessions
- Established computer lab setup and maintenance programs in local communities

Technical Advisor - Jansdell Bharathi NGO 2023 - Present
Kolkata

- Led digital transformation initiatives impacting 500+ community members
- Implemented basic tech education programs focusing on smartphone literacy
- Created educational content in local languages for better accessibility
- Conducted monthly technology awareness workshops for elderly community members

CERTIFICATIONS & ACHIEVEMENTS

ABINITO WINNER: Ranked 2nd in AI Hackathon
Vashisht Hackathon: Won IIITD Hackathon organized on Kaggle
ML OLYMPAID: Ranked 13th Worldwide
CODE BATTLE: Ranked 2nd in EDA at SRMIST
Artificial Intelligence and Machine Learning: University of Texas at Austin, 2024