

ABUBAKER ATTIQUE

AI/ML Engineer

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PROFESSIONAL SUMMARY

Computer Science graduate currently pursuing an M.Sc. in Artificial Intelligence in Germany, with 2+ years of professional software development experience. Experienced in designing, training, and deploying deep learning and full-stack applications across computer vision, speech, and multi-modal AI domains. Proficient in Python, PyTorch, TensorFlow, ReactJS, and Flask, with hands-on experience delivering scalable, production-ready ML systems end to end. Passionate about building intelligent systems that solve real-world problems at scale.

PROFESSIONAL EXPERIENCE

Developer — R2V Private Limited | *May 2025 – May 2026*

Islamabad • Pakistan

- Led frontend development and feature expansion for web and GIS applications, owning delivery from requirements to production deployment.
- Refactored legacy React code into reusable modular components, improving maintainability and reducing rendering bottlenecks.
- Built interactive dashboards, data filters, and GIS map tools with backend integration, optimizing load times and UI stability.
- Acted as technical coordinator, translating stakeholder requirements into responsive, production-ready features and supporting testing and deployment.

React Front-End Developer — R2V Private Limited | *Oct 2024 – Mar 2025*

Islamabad • Pakistan

- Developed responsive, cross-device interfaces in ReactJS and implemented reusable components with robust form validation.
- Partnered with designers to improve UI/UX and frontend performance, and resolved UI defects through systematic debugging.

AI Engineer (Internship) — LIMS-COE | *Jun 2024 – Sep 2024*

Rawalpindi • Pakistan

- Trained a CNN-based deep learning model for plant-disease classification, aggregating and standardizing datasets from diverse sources to ensure data integrity.
- Integrated the trained model into the organization's production application, enabling real-time diagnostic capabilities.
- Contributed research and insights to technical working papers and presentations for the engineering team.

React Front-End Developer (Internship) — R2V Private Limited | *Jun 2023 – Aug 2023*

Islamabad • Pakistan

- Designed and built the frontend of the Balochistan Land Record MIS (BLRMIS) using React, Tailwind, and Leaflet for interactive mapping.
- Collaborated with a cross-functional team of 4 developers to deliver frontend modules 2 weeks ahead of schedule.

Teaching Assistant, Physics — FAST-NUCES (National University of Computer & Emerging Sciences) | *Sep 2022 – Feb 2023*

- Mentored and supported 150+ students through weekly office hours, tutorials, and one-on-one sessions.

EDUCATION

M.Sc. in Artificial Intelligence | *Apr 2026 – Present*

Brandenburg University of Technology Cottbus-Senftenberg • Cottbus, Germany

B.Sc. in Computer Science | *Sep 2020 – Jun 2024*

FAST-NUCES (National University of Computer & Emerging Sciences) • Pakistan

Relevant Coursework: Artificial Intelligence, Applied Machine Learning, Data Structures & Algorithms, Operating Systems, Database Systems, Natural Language Processing, Software Engineering

KEY PROJECTS

AI Interview Coach — Real-Time Multi-Modal Analysis System | 2026

Python, PyTorch, MediaPipe, OpenCV, Librosa, Flask, ReactJS | github.com/AbuBakerAttique/AI-Interview-Coach

- Engineered a multi-modal AI pipeline with 4 custom deep learning models for real-time interview analysis via webcam and microphone.
- Trained a Speech CNN+LSTM from scratch on RAVDESS (2,880 audio files) using MFCC features — 93.4% accuracy; a Facial-Expression CNN on FER2013 (28,821 images) — 75.5%; and a Posture NN on MediaPipe landmark data (4,794 samples) — 97.3%.
- Built a score-fusion layer combining all 4 models into a final confidence score with grade and actionable feedback.

AI Gym Rep Counter & Form Analyzer | 2026

Python, MediaPipe, NumPy, Three.js, Web Speech API | github.com/AbuBakerAttique/Gym-Project

- Built a real-time computer-vision fitness tracker using MediaPipe Pose to count reps and detect form errors across 6 exercises — no paid APIs.
- Engineered a joint-angle calculation engine with NumPy and a state-machine rep counter using exercise-specific elbow, knee, and hip thresholds.
- Implemented phone-as-camera mode via MediaPipe.js with self-signed HTTPS, plus a Three.js 3D form guide and real-time voice feedback.

Fake News Detector — Explainable AI Web Application | 2026

Python, Flask, Streamlit, scikit-learn, NLTK, LIME | <https://fake-news-demo.streamlit.app/>

- Built a fake news detection web app that classifies articles as **Fake** or **Real** using TF-IDF and machine learning models.
- Added **LIME explanations**, model comparison, and word cloud visualisations to make predictions easier to understand.
- Included statistical writing-style analysis to detect patterns such as sentence structure, vocabulary usage, and formality.

Plant Disease Detection System (AI + Web App) | 2024

Python, TensorFlow, CNN, Flask, REST API

- Developed a CNN model to classify plant-leaf diseases from images and served it through a backend inference API for real-time predictions.
- Built a responsive full-stack web app with image preprocessing and confidence scoring for non-technical users (farmers).

Mute Motion — AI Sign-Language to Text | 2023 – 2024

React Native, Firebase, Computer Vision | Final-Year Project

- Built an AI-driven sign-language recognition system to enable communication between sign-language and non-sign-language users.
- Implemented a React Native frontend with a Firebase backend for real-time interaction.

TECHNICAL SKILLS

Languages: Python, C/C++, SQL, JavaScript, PHP, HTML/CSS

AI/ML: PyTorch, TensorFlow, Keras, Scikit-learn, CNNs, LSTMs, Computer Vision, OpenCV, MediaPipe, Librosa, Fine-Tuning Models, Model Training & Evaluation

Data Science: NumPy, Pandas, Matplotlib, Seaborn, Jupyter Notebook, Excel, Data Visualization, Statistical Analysis, Data Preprocessing, Feature Engineering (MFCC)

Web Development: ReactJS, Next.js, React Native, Flask, Express.js, REST APIs, Tailwind CSS, Bootstrap

Databases: PostgreSQL, MySQL, SQLite, MongoDB

Tools: Git, Linux, VS Code, Android Studio, Figma

Automation & Scraping: BeautifulSoup, Web Scraping

LANGUAGE

- **English** (Professional)
- **Urdu** (Native)
- **Pashto** (Native)
- **German** (A1.1)