# AHMED SHEIKH

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Machine Learning Engineer and AI researcher with hands-on experience in academic research, app development, and data analytics. Skilled in NLP, computer vision, and deep learning. Freelance contributor to university projects and builder of practical user-focused AI solutions.

#### **PROJECTS**

Developed an interactive math learning web app for primary school children to learn basic math such as Addition, Subtraction, Multiplication, and Division in a simple, gamified way. Features include quizzes, slides, performance summaries, and feedback. Built with Next.js and Gemini API for inference. The first version is live, with future enhancements and new features is in progress. App Link

Built an HR resume analyzer using Next.js and Gemini API to identify candidate strengths and weaknesses, generate interview questions, and export PDF summaries, enabling faster, more effective shortlisting through interactive visualizations. App Link

#### **WORK EXPERIENCE**

#### Freelance Machine Learning & AI Engineer (Remote)

Nairobi, Kenya

**Multiple Academic Institutions** 

August 2021-Present

- Developed a deep learning model (Transformer + BiGRU) trained on the LIAR and ISOT datasets to detect fake news. The system performs NLP preprocessing (tokenization, padding, embeddings) and classifies news as FAKE or REAL with 89% accuracy. Experiment Link
- Devised and implemented an English Accent Classifier that extracts audio from video URLs and classifies
  accents as UK, US, Australian, or New Zealand using the SpeechBrain ECAPA model. The project is
  currently under development, with promising primary result. <a href="Experiment Link">Experiment Link</a>
- Applied the projection profile algorithm to detect and correct skew in Mushaf Al-Quran manuscripts; the methodology is currently under peer review.
- Led advanced research in Arabic handwritten document analysis, applying computer vision methods specifically region-based segmentation for diacritics—which resulted in a peer-reviewed publication: IJECE 2020.

#### Data Analyst (Full-Time)

Jeddah, Saudi Arabia

Abdulaziz Al-Sorayai Investment Company (ASIC), ICT Department

June 2019 – July 2021

- Collaborated with cross-functional teams to identify key data issues, optimize reports, and enhance business decisions.
- Developed SQL-based reporting solutions using MariaDB and Power BI to generate weekly dashboards, providing actionable insights that supported routine decision-making and improved departmental reporting efficiency.

## **Software Developer (Full-Time)**

Malaysia, Melaka

UTeM, Faculty of Information and Communication Technology,

September 2016 – August 2017

Biomedical Computing and Engineering Technologies Applied Research

Groups (Biocore Laboratory)

 Developed a comprehensive healthcare information system for UTeM university clinics, later adapted for deployment at Hospital Kuala Lumpur. Led backend and server-side development using JSP and Java, ensuring high system availability and efficient management of large-scale student health records and clinic operations.

#### **EDUCATION**

## Universiti Teknikal Malaysia Melaka

Malaysia, Melaka

M.Sc. in Computer Science (Software Engineering and Intelligent) Thesis: *Diacritics Segmentation for Arabic Handwritten Document* 

February 2018 – February 2019

## **Universiti Teknikal Malaysia Melaka**

Malaysia, Melaka

B.Sc. in Computer Science (Database Management)

September 2013 - November 2017

Thesis: UTeM Online Ordering System

## **ADDITIONAL SKILLS**

- Languages: Python, Java, JavaScript, C++, C#, PHP
- Frameworks: PyTorch, TensorFlow, Scikit-learn, Node.js, Laravel, Vue.js, React.js, Next.js, Laravel
- Tools & Platforms: Streamlit, Docker, Git, Firebase, Hugging Face, AWS, Power BI, Tableau
- Databases: MYSQL, ORACLE, PostgreSQL, Firebase, MongoDB, AWS Cloud
- Machine Learning Models: Transformer, CNN, LSTM

## **LANGUAGES**

Arabic, English, Somali, Malay, Swahili

#### **AWARDS AND HONNORS**

**AUG 2016** 

Nominated as an outstanding final year project in bachelor's degree

#### **CERTIFICATES**

Introduction to Oracle 9i (2018)