# Mohammed Jawad Hussain

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## Profile Summary

Final-year Computer Science Engineering student with hands-on experience in AI/ML and full-stack development. Built DentXAI (YOLOv8-based explainable AI for dental diagnostics) and Heimdall (email classifier with 98.5% accuracy). Proficient in Python, Django, PostgreSQL with expertise in Machine Learning, NLP, and Computer Vision. Passionate about building intelligent systems and eager to contribute to AI/ML or software engineering teams.

# EDUCATION

The Oxford College of Engineering

Bachelor of Engineering in Computer Science and Engineering (CGPA: 9.1/10)

Our Own English High School Secondary School (Percentage: 95.2%)

Bengaluru, India Nov. 2022 - Present Sharjah, UAE Apr. 2015 - May 2021

Mar. 2025 – Aug. 2025

#### Experience

#### Product and Tech Intern

Ebrah Technologies Bengaluru, India

- Built the startup's website using Django, PostgreSQL, HTML, and Tailwind CSS with responsive design.
- Collaborated with founding team to suggest product improvements, streamline workflows, and coordinate with external partners
- Contributed to product strategy discussions while gaining hands-on experience in startup operations

#### Projects

# DentXAI | YOLOv8, Grad-CAM, PyTorch, OpenCV, Explainable AI

Sep. 2025

- Developed deep learning system for dental cavity detection using YOLOv8 on intraoral images
- Integrated Explainable AI techniques (Grad-CAM, occlusion visualization) to interpret model predictions and highlight decision-influencing regions
- Improved model transparency and clinician trust by providing visual explanations, bridging AI predictions with medical decision-making

# **Heimdall** | Python, scikit-learn, NLTK, Streamlit, TF-IDF | heimdall.streamlit.app

- Engineered email classification system achieving 98.5% accuracy across 6 categories by benchmarking three ML algorithms (Naive Bayes, Logistic Regression, Random Forest) on 2,696+ test emails
- Implemented NLP preprocessing pipeline using NLTK (stopword removal, lemmatization) and TF-IDF vectorization, achieving 97-100% precision on critical categories like spam detection
- Deployed production-ready web application on Streamlit Cloud with real-time inference (¡100ms latency), confidence scoring, and multi-model comparison interface

#### Brother Eye | Raspberry Pi, scikit-learn, SQLite, Pandas, Flask

Aug. 2025

- Built a Raspberry Pi-based dashboard to monitor CPU, memory, disk, and battery metrics in real time with persistent data storage using SQLite
- Applied ML models (Linear Regression for trend forecasting, K-Means for anomaly clustering) to predict performance degradation and detect potential system issues proactively
- Enabled interactive controls for restarting applications and managing processes through a Flask-based web interface accessible across local network

# TECHNICAL SKILLS

Languages: Python, SQL (PostgreSQL), JavaScript, HTML/CSS

Web Frameworks: Django, Flask, Streamlit, Tailwind CSS, Streamlit

Machine Learning: Supervised ML, Regression, Statistical ML, NLP, Computer Vision

ML/AI Tools: scikit-learn, PyTorch, YOLOv8, OpenCV, NLTK, TF-IDF, Grad-CAM, pandas, NumPy, Matplotlib

Developer Tools: Git, VS Code, Jupyter Notebook, Raspberry Pi, Joblib

# Professional Courses

Machine Learning Specialization – Andrew Ng, DeepLearning.AI Generative AI: Introduction and Applications – IBM (Coursera)