

# Yasser Ahmed Mohammed

Machine Learning Engineer | Data Science Undergraduate

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## Education

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**BMS College of Engineering, Bengaluru**  
B.E. Computer Science (Data Science)

Mar 2024 – Present  
**CGPA: 8.1**

## Technical Skills

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**Languages:** Python, Java, SQL, Kotlin

**Machine Learning & Data:** Pandas, NumPy, scikit-learn, Matplotlib, Feature Engineering, Model Evaluation, Classification, EDA, Data Preprocessing

**Backend:** FastAPI, Flask, REST APIs

**Databases & Tools:** PostgreSQL, MongoDB, Firebase, Power BI, Tableau, Git, Vercel

## Projects

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**ClassLogger — Biometric Attendance Verification System | Kotlin, FastAPI, FaceNet, MTCNN, Firebase** [GitHub]

- Architected a multi-component biometric system integrating Android, FastAPI backend, and Firebase, implementing a multi-stage inference pipeline (MTCNN → FaceNet → KNN) for real-time identity verification.
- Implemented embedding-based recognition using 512-D FaceNet vectors with cosine similarity thresholding, combined with WiFi SSID/BSSID fingerprinting for dual-factor validation and spoof resistance.
- Reduced attendance time by ~85% (5–8 min → <60s) for 100+ students, enabling real-time tracking, audit logs, and automated session-level verification.

**Credit Card Default Prediction — Risk-Aware ML Pipeline | Python, scikit-learn, Pandas** [GitHub]

- Built an end-to-end classification pipeline on ~30K records with feature engineering, preprocessing, and multi-model training (Logistic Regression, Decision Tree, Random Forest).
- Applied dimensionality reduction (24 → 11 features) using domain-driven aggregation and implemented cost-sensitive learning to address class imbalance.
- Optimized decision threshold (0.50 → 0.25), improving default recall by 165% (0.23 → 0.61) and reducing false negatives by 56% for cost-aware risk prediction.

**Aadhaar N.E.X.U.S — Digital Equity Analytics Platform | Python, Pandas, Plotly, Streamlit** [GitHub] [Live]

- Engineered a data pipeline integrating 3 UIDAI datasets to compute a Digital Equity Index (DEI) across 645+ districts using normalized multi-indicator scoring.
- Designed composite metrics (Access Health, Update Load, Stability) with geospatial visualization (choropleth + drill-down) for district-level analysis.
- Delivered real-time insights across 36 states/UTs, achieving <3s latency and reducing analysis time from weeks to seconds via interactive dashboards.

## Certifications

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**Nutanix Certified Associate (NCA) — Nutanix** [Credential]

2026

## Leadership

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- Secretary, DSync Data Science Club — Led workshops and peer-learning sessions in ML/Data Science for student cohorts.
- Event Coordinator — Managed execution of large-scale technical and cultural events with cross-team coordination.