FAHAD DUBUSH

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LinkedIn | GitHub

EDUCATION

B.Sc. Computer Science | Effat University, Jeddah
100% fully-funded scholarship (merit + philanthropist sponsorship)
Relevant Coursework: Computer Networks, Machine Learning, Deep Learning, Neural Networks, NLP, Big Data Analytics (Apache Spark), Software Engineering, Database Management

TECHNICAL SKILLS

Platforms: Git, Docker, Linux, Ollama, Power BI, Cisco Packet Tracer
AI & Data: Machine Learning, Deep Learning, NLP, LLMs, RAG, Computer Vision, Federated Learning, System One models (Jev)
Programming: Python, Java, JavaScript, SQL, HTML/CSS
Frameworks & Tools: PyTorch, TensorFlow, Scikit-learn, Pandas, Apache Spark, gRPC, n8n, sentence-transformers

EXPERIENCE

Information & Technology Trainee | Jeddah Hilton · Jul 2026 – Present
- Work with **Active Directory**; support Hilton Lobby accounts, staff devices, and guest Wi-Fi.
- Assist with network switch maintenance, server troubleshooting, **Splunk** monitoring, and daily **backup tape** changes.
- Contribute to the setup of **Navitas** smart temperature monitoring for kitchen refrigerators and freezers.
- Set up and troubleshoot Oracle **MICROS** cashier systems for hotel operations, events, and buffets.
- Support **Onity** access cards and devices, program Hilton TVs, and assist guests with requests and complaints.

Freelance Creative & Digital Marketing | Self-employed · 2020-2023
- Created branding and social content; built and managed a client's store, including product photography.

Core Member & Creative Lead · Effat AI Club (EAIC) | Effat University · Fall 2025
- Created event materials, gave recruitment talks, and helped coordinate logistics and speakers.

Shipment & Customer Service Specialist | Part-time · 2020-2025
- Managed deliveries and resolved customer inquiries.

RESEARCH

ML-Based Anomaly Detection in Digital Forensics | Effat University | Spring 2025
Co-authored with Thamer Karsh and Hassan Alsayed | Supervised by Dr. Passent Elkafrawy
- Reviewed machine learning approaches to anomaly detection in logs, network traffic, and IoT data, and proposed a scalable digital forensics framework.
- **Awarded first place at the Effat University ECOE Career Fair, Spring 2025.**

Self-Healing Cyber-Physical Systems: Smart Grids, AVs & Industry 4.0 | Effat University | Spring 2025
Supervised by Dr. Passent Elkafrawy
- Reviewed 23 peer-reviewed studies on self-healing approaches across smart grids, autonomous vehicles, and industrial control systems.

A Comparative Analysis of Machine Learning Approaches to Bipolar Disorder Diagnosis | Effat University | Summer 2023
Co-authored with Abdullah Bamakhash | Supervised by Dr. Tayeb Brahimi
- Compared machine learning approaches to diagnosis and identified research gaps in data diversity, longitudinal studies, and privacy.

PROJECTS

HomeLab Media Server and TUI | Personal Project · Summer 2026
Makes a self-hosted server easier to monitor and manage through a terminal interface.
- Built and continue to expand a Linux-based media server using Docker containers, SSH, networking, and reverse proxies.
- Developed a terminal interface for system monitoring, container management, and maintenance tasks.

NeuroGrid ISMCC-MAS · Capstone Project | Effat University · Senior II, Spring 2026
Privacy-Preserving & Byzantine-Resistant Multi-Agent Energy Management System
Forecasts energy demand without centralizing household data and lets users consult an LLM for energy-saving advice.
- Architected a three-tier multi-agent federated learning system using PyTorch, Apache Spark, and gRPC for smart-grid energy forecasting.
- Integrated Multi-Krum Byzantine defense and Weighted FedAvg aggregation for privacy-preserving, tamper-resistant model training
- Integrated an Ollama LLaMA 3.1 (8B) model for personalised energy-saving recommendations.

Pilgrim Companion · RAG + LLM System | NLP Course Assignment · Fall 2025
Makes Hajj and Umrah guidance easier to find through answers grounded in retrieved sources.

- Built a Retrieval-Augmented Generation pipeline combining a large language model with a domain-specific knowledge base for Hajj guidance
- Implemented semantic search and context-aware response generation with a polished, user-friendly UI

Groundtruth, Retrieval Evaluation System | Personal Project · Fall 2026
Helps identify retrieval regressions in legal research systems.

- Built an evaluation harness to compare lexical, dense, hybrid, and reranked retrieval approaches.
- Added a CI regression gate and reports that break down retrieval performance by practice area.

FORGE Athletic Apparel | Client Project · Fall 2026

- Deployed an interactive webpage for a sportswear client.

Personal Second Brain · Agentic Memory System | Personal Project · Spring 2026
Makes information easier to find and reuse through a shared, evidence-based memory system.

- Built an agentic Obsidian-based knowledge system automating note linking, retrieval, and synthesis across research topics

VOLUNTEER & ACTIVITIES

KeepEffatClean Campaign Founder | Social Media Initiative · Effat University

- Founded and led a social media campaign promoting campus cleanliness.

Volunteer · 20th International Learning & Technology Conference | Effat University · 2023

- Supported conference operations; received a Certificate of Appreciation from President Dr. Haifa Reda Jamal Al-Lail.

Theatrical Performer & Short Film Actor | Effat University · 2022 – 2024

- Performed in two university productions and acted in short films with Cinematic Arts students.

LANGUAGES

Arabic · Native · English · Fluent (Linguaskill: 169, B2) · French & German · Introductory Knowledge

SELECTED CERTIFICATIONS

AI & Technology

- Neural Networks and Deep Learning · DeepLearning.AI
- Text Retrieval and Search Engines · University of Illinois Urbana-Champaign
- Generative AI: Introduction and Applications · IBM
- Five Claude AI Specialist Certifications · Anthropic

Data & Analytics

- Data Analysis and Visualization with Power BI · Microsoft

Professional Development

- Email Security & Social Networks · Future of Knowledge Higher Institute