

Saleh Khalid Baderah

✉ s.baderah@hotmail.com ☎ +966 505292254  Saleh Baderah  SalehBaderah

SUMMARY

Senior Computer Engineering student specializing in Artificial Intelligence, Python data analysis, and hardware integration. Growing experience in building, training, and evaluating Machine Learning and Deep Learning models through various impactful projects. A strong problem-solver with excellent teamwork and effective communication skills.

EDUCATION

Taif University | Saudi Arabia
Bachelor's Degree in Computer Engineering | GPA: 3.25 / 4

Expected: Jan 2027

TECHNICAL PROJECTS

CryptoPulse MQTT (CPM) | Graduation Project | TensorFlow,Pandas,Numpy,Sklearn

- A multi-layered security framework for MQTT-based IoT devices
- Developed an Artificial Neural Network (ANN) for Physical Layer Security (PLS) to detect RF jamming and signal anomalies, achieving a 91% accuracy.
- Built an end-to-end data pipeline, from data collection and cleaning to model training, evaluation, and comprehensive dashboard reporting.

Siyaq | Unified AI Customer Intelligence Platform | AgentX Hackathon - 3rd Place

- Built a multi-agent AI platform to centralize fragmented customer communications into a single unified database.
- Engineered an automated system that generates real-time customer intelligence reports, including sentiment analysis, open issues, and predicted call reasons.
- Developed a post-call AI agent that handles Speech-to-Text (STT) transcription, automatically completes interaction forms, and logs the data directly into the database.

Ischemic Stroke Lesion Segmentation | Python, PyTorch, Computer Vision

- Implemented a U-Net deep learning model to automatically identify and segment stroke lesions from brain MRI images.
- Achieved a highly accurate segmentation performance with an 89% Dice Coefficient score.

Computer Vision & Arduino | Python, Arduino, OpenCV, Mediapipe

- Developed real-time gesture control projects using Python and Arduino.
 - Finger Counting with 7-Segment Display
 - LED Control via Hand Gesture

COURSES & CERTIFICATES

- **Introductory Artificial Intelligence Training Program** | KAUST Academy (Focus: Python Data Processing, Supervised learning, Math for Machine Learning)
- **Machine Learning Specialization** | Coursera (Focus: Advanced Learning Algorithms, Regression & Classification, Model Evaluation)
- **Deep Learning for Coders (fastai & PyTorch)** | Self-Learning
- **Computer skills & information technology (180 Hours)** | Arab International Academy
- **Intensive English Language Course (180 Hours)** | Center Professional Development and Educational Supervision

EXPERIENCE

Presented a workshop on Data cleaning with Python

Presented a theoretical and practical Python workshop focused on data manipulation and cleaning using Pandas and NumPy.

Vice Leader of Activities & events | OracleNextGen Club (Volunteer)

Organized events and workshops on various topics that helped students explore different fields.

Monitoring and Development Team Member | Ertwa Team (Volunteer)

Tracking and monitoring members, identifying areas for improvement, and developing effective solutions.

Participated at CIT Event v3, A tech Event in Taif (Volunteer)

Guided students at the Artificial Intelligence Booth by presenting a structured learning roadmap for attendees to start their AI journey.

SKILLS

Soft Skills

Problem-Solving, Teamwork, Leadership, Effective Communication, Event & Workshop Management, Task Organization (Notion), Poster design.

Technical Skills

Python, C++ (Basics), PyTorch & TensorFlow (Fundamentals), scikit-learn, Pandas, NumPy, Data Processing & Visualization (Basics), Jupyter Notebook, N8N (Automation), Git & GitHub, FastAPI.