Mohamedalfateh T.M Saeed

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ABOUT ME

Mohamedalfateh is a data scientist passionate about implementing computer vision-based AI solutions to drive business innovation. He has a strong academic background and extensive experience in teaching Microcontrollers, PLCs, and Robotics.He has successfully developed and deployed AI models, including a facial emotion recognition system as a web-based application in a production environment. His expertise spans data analysis, machine learning, and model deployment, with a particular interest in TinyML for computer vision applications. Mohamedalfateh graduated at the top of his class from Al Neelain University's Control Engineering B.Sc. program and holds a Master's in Electrical and Electronics Engineering from Istanbul University-Cerrahpaşa. Driven by innovation and problem-solving, he continues to bridge the gap between AI research and real-world applications.

EDUCATION

Ondokuz Mayis University | Samsun, Türkiye **Sep 2024 – Jun 2028**

- Ph.D. Electrical & Electronic Engineering | GPA 3.88/4.0.
- Fully funded by Turkish Government Scholarship.

Istanbul University-Cerrahpaşa | Istanbul, Türkiye **Sep 2019 – Jun 2022**

- M.Sc. Electrical & Electronic Engineering | GPA 3.38/4.0.
- Fully funded by Turkish Government Scholarship.

Alneelain University | Khartoum, Sudan **Sep 2012 – Oct 2017**

- B.Sc. Electronic Engineering (Control) | Highest GPA in the class 83.67%.
- First hardware-based PLC/SCADA graduation project; awarded the best project award.
- Master's degree Excellence Scholarship (Embedded Systems Engineering).

WORK EXPERIENCE:

TÜBİTAK | Osmaniye, Türkiye **April 2025 – Present**
Research Scholar

- Responsible for the Machine Learning aspect of the TÜBİTAK 1001 project titled "Machine Learning-Supported Wireless Node Topology Formation and Live Location Detection Under Earthquake Debris in the High-Frequency Band," conducted at Osmaniye Korkut Ata University.

Alneelain University | Khartoum, Sudan **Nov 2022 – Feb 2025**
Teaching Assistant – Online Education

- Conducted over 28 online classes and lectures in Electrical & Electronic Engineering, reaching and engaging with more than 35 students per session.

- Implemented advanced teaching methods to engage students effectively in online learning environments.
- Collaborated with colleagues to develop and refine course materials and curriculum.

Alneelain University | Khartoum, Sudan **Nov 2017 – Sep 2018**
Teaching assistant

- Implemented both software and hardware robotic classes, overseeing and evaluating projects for 80 students.
- Evaluated and provided feedback on 9 Microcontroller projects for 80 students, achieving a 95% success rate and tutored 3 other courses.

University of Medical Science & Technology | Khartoum, Sudan **Feb 2018 – Sep 2018**
Teaching assistant

- Assisted professors to prepare lectures, understanding check questions, and arrange activates for 3 batches and taught 4 subjects.
- Guided and oriented more than 10 students during their graduation projects.
- Conducted 3 additional classes on advanced PLC and SCADA applications to extend the scope of PLC subject and led to a 92.6% success for students in PLC labs.

COURSES

• Software Engineering with back-end specialization	Alx Africa & MasterCard	Feb 2025
• Agile by Jira	Coursera	Aug 2024
• Machine Learning Bootcamp	UNDP Istanbul	July 2024
• Python For Everyone Specialization	Coursera	May 2024
• Introduction to Big Data	Presidency for Turks Abroad and Related Communities	Sep 2023
• BRAINSTRORMING – Artificial Intelligence	Presidency for Turks Abroad and Related Communities	Aug 2023
• Neural Networks and Deep Learning Specialization	Coursera	May 2023
• Machine Learning Specialization	Coursera	May 2023

GRADUATION PROJECTS

Prediction of Remaining Useful Lifetime of Turbofan Engine using PCA and Artificial Neural Networks (M.Sc.) **Sep 2021 – Jun 2022**

- Applied Principal Components Analysis (PCA) to reduce NASA's Turbofan engine simulation datasets dimensions from 21 to 4 inputs and are fed to four different neural networks models.
- Although the inputs have been significantly reduced, the proposed method outperformed the literature by 0.98%, also has better training and predicting time.

Color Mixing Based PLC/SCADA (B.Sc.) **Jan 2017 – Aug 2017**

- Leveraged SIMATIC MANAGER S7 /WinCC EXPLORER environment to design and implement an innovative system for fabricating color mixer

- Implemented seamless communication between PLC and fabrication process, ensuring efficient data acquisition and customized programming for optimal performance.
- Received recognition as the best project for the bachelor's degree**.**

SKILLS

- Tensorflow
- Cv2
- MySQL
- SQLite 3
- Flask
- Bash
- HTML & CSS
- Sorting & Searching Algorithms
- Neural Networks
- Machine Learning Algorithms
- Exploratory Data Analysis
- AI Models Production Deployment
- Git & GitHub
- SAP
- Gunicorn
- RESTful API
- C programming Language
- JavaScript
- Ngnix
- React
- Python
- Jira

VOLUNTEER WORK

Community Supporter at UNDP Istanbul **Aug 2024 – Nov 2024**

- Hosted and moderated 14 online sessions, ensuring attendance.
- Sent timely reminders and follow-up emails.
- Provided guidance and direction to students during the Machine Learning BootCamp program.

Python Instructor at The UNDP Istanbul **Sep 2024 – Oct 2024**

- Delivered 4 comprehensive online sessions on Databases and Search Engine Implementation for more than 60 students.
- Reviewed and provided detailed feedback on students' assignments to facilitate learning and improvement.
- Mentored students to deepen their understanding of complex technical concepts.

PUBLICATIONS

- MTMS Aisha SIR ELKHATEM , Şeref Naci ENGİN "Vision-based Collision Avoidance Systems Using One-Class Classification-based Supervised Learning for Unmanned Aerial Vehicles" 25. OTOMATİK KONTROL ULUSAL KONFERANSI (TOK2024) Bildiriler Kitabı, 648-654, https://yordam.ktun.edu.tr/yordam/?p=1&q=*&dil=0&demirbas=EK01A7020F.
- M. T. M. Saeed, M. A. A. Yousif and A. A. M. Hakim, "TransConvNet: Enhancing Kidney Abnormality Detection in CT Imaging through Hybrid Transformer-CNN Model with Integrated Explainability," *2024 12th International Scientific Conference on Computer Science (COMSCI)*, Sozopol, Bulgaria, 2024, pp. 1-5, doi: 10.1109/COMSCI63166.2024.10778503.
- A. A. M. Hakim, S. K. Yildiz, A. Yilmaz and M. T. M. Saeed, "Improvement of Human Activity Recognition (HAR) Performance by Utilizing LSTM in the Structure of Progressive Learning," *2024 12th International Scientific Conference on Computer Science (COMSCI)*, Sozopol, Bulgaria, 2024, pp. 1-5, doi: 10.1109/COMSCI63166.2024.10778519.

LANGUAGES

- **Arabic** : Native (Mother language).
- **English** : C1 level (CEFR), 93% in Erasmus+ English exam.
- **Turkish** : C1 level, 82% in Istanbul University Turkish proficiency test.