Abdelrhman Saeed

AI Engineer

Email: abdosaaed749@gmail.com **Phone**: +20100981441
GitHub: https://github.com/Samspei01
LinkedIn: https://www.linkedin.com/in/abdelrhman-saeed-9b17b9238/

Education

Arab Academy for Science, Technology & Maritime Transport
Bachelor's degree in Artificial Intelligence with Grade **Very Good** **2021 – Present**

PERSONAL PROJECTS

- **University registration system** **Sep 2021 – Dec 2021**
  Developed a comprehensive student portal registration system using C. This project involved creating a robust backend capable of handling all aspects of system registration, including user input validation, data storage, and retrieval processes, enhancing the registration experience for users.
- **Circuit Design, VGA Technology** **Jul 2022 – Sep 2022**
  Developed a custom video card circuit capable of displaying images on a VGA monitor. This project involved understanding and implementing VGA signal protocols, designing and building a circuit that accurately handles signal timing and synchronization for image display.
- **Football Club Database** **Oct 2022 – Dec 2022**
  Designed and developed a comprehensive database for managing a football club using SQL. Implemented the database in a Python application to facilitate data handling and user interaction, enabling efficient management of player statistics, game schedules, and club finances.
- **Sudoku Solver AI** **Nov 2022 – Dec 2022**
  Sudoku Solver AI uses Prolog to solve Sudoku puzzles using Artificial Intelligence algorithms such as DFS, BFS, and heuristic search.
- **Daily website visitors (time series regression)** **Jul 2023 – Aug 2023**
  This Project utilizes four machine learning models: Random Forest Regression, Linear Regression, Decision Tree and KNN. These models are combined with data collection, cleaning, and visualization processes.
- **Music streaming platform software project** **Jul 2023 – Aug 2023**
  This platform will allow users to access a vast collection of music tracks, albums, playlists and enhance their music listening experience. The primary services provided by the platform include System Requirements Specification, UML Diagrams and Software Process Model.
- **Face Emotion Recognition using CNN** **Nov 2023 – Dec 2023**
  This project uses the TensorFlow framework to build a Convolutional Neural Network (CNN) that that can accurately recognize and classify different human emotions (like happy, sad, angry, surprised, etc.).
- **Laser Engraving Machine** **Nov 2023 – Dec 2023**
  This project aims to create a Laser Engraving Machine controlled by MKS DLC V2.0 with IoT Integration, combining precision engraving capabilities with remote monitoring and control features.
- **Custom Drone Build** **Sep 2022 – Dec 2022**
  Engineered a fully functional drone from the ground up, utilizing a Raspberry Pi as the flight controller. Integrated a camera for aerial imaging capabilities. The project showcased advanced skills in hardware assembly, software programming, and real-time data handling.
- **Rubik's Cube Solver** **Feb 2023 – Jun 2023**
  Created a solution to automatically solve Rubik's Cubes using a pretrained model and image processing. Demonstrated expertise in applying machine learning algorithms and computer vision techniques for real-time problem solving.
- **Clothing E-commerce Website** **May 2023 – Jun 2023**
  Developed a fully functional e-commerce website for clothing retail. Utilized Node.js for server-side logic, along with HTML, CSS, and JavaScript for front-end development. Integrated a robust database system to handle user data, product inventory, and transactions efficiently.
- **Deep Learning Chatbot** **Nov 2023 – Dec 2023**
  Engineered a chatbot using deep learning techniques to simulate intelligent conversations. Developed a user-friendly interface to interact with the model, enhancing user engagement and providing real-time responses.
- **Human Mimicry with NAO Robot** **Oct 2023 – Dec 2023**
  Developed a NAO robot capable of mimicking human movements. Utilized advanced pose estimation technologies combined with OpenCV for image processing and kinematics to accurately simulate human gestures and actions.
- **NLP-Based Code Generation** **May 2024 – Jun 2024**
  Developed a code generation tool leveraging NLP to interpret user commands and automatically generate programming code. Implemented a user-friendly interface to facilitate easy interaction and enhance user experience, promoting efficient code creation.

- **Jupiter Robot Autonomous System** **May 2024 – Jun 2024**
  Developed an advanced autonomous system for a Jupiter robot, designed to assist in home settings. Integrated image processing and OpenCV for facial recognition, along with NLP and pretrained models for speech recognition, enabling the robot to interact intelligently and perform tasks independently based on verbal commands and visual cues.
- **Astro-AI-Translator App** **Feb 2024 – May 2024**
  "Astro-AI-translator," a mobile app built with Flutter and Dart, featuring five pretrained AI models through TensorFlow for advanced real-time language translation. The app's user interface was meticulously designed using Figma, enhancing usability and aesthetic appeal to ensure a seamless user experience.

CERTIFICATES

- **Certificate of Attendance** **Jun 2022 – Jun 2022**
  This certificate was awarded to me by the Robot Lab Incorporation for attending the 2023 summer seminar.
- **Certificate of Achievement** **Aug 2022 – Aug 2022**
  I achieved Twenty-fifth Place in the 2022 ICPC ECPC Qualifications Collegiate Programming Contest Day 1, demonstrating advanced skills in algorithm design and problem-solving.
- **Certificate of Achievement** **Feb 2023 – Feb 2023**
  I participated in the ROBOCUP@HOME EDU Workshop, enhancing skills in robotics and autonomous systems. Gained practical experience in programming and operating the Jupiter robot, applying techniques in real-world simulation tasks.
- **Certificate of Achievement** **Aug 2023 – Aug 2023**
  I qualified for and achieved Twelfth Place in the 2023 ICPC ECPC Qualifications Collegiate Programming Contest Day 1.
- **Certificate of Achievement** **Aug 2023 – Aug 2023**
  I competed effectively and secured 71st place, showcasing my proficiency in tackling complex algorithmic challenges within a rigorous competitive framework.
- **Certificate of Appreciation** **Jan 2024 – Feb 2024**
  This certificate was awarded to me by the prestigious ICPC Assiut Community for outstanding performance and dedication during the Winter Camp Trial. Demonstrated exceptional problem-solving skills and teamwork.

TECHNICAL SKILLS

- ***Languages:*** *C/C++, Python, JavaScript, Prolog, C#, Dart, HTML*
- ***Platforms:*** *Arduino, AWS, Linux, Windows*
- ***Tools and Libraries:*** *MySQL, TensorFlow, Pandas, Matplotlib, Scikit-learn, NumPy, OpenCV, Express.js, Pug, ROS, MATLAB*
- ***Software and Web Development:*** *Full Stack Web Development, Embedded Programming, Mobile App Development using Flutter*
- ***Machine Learning and Data Science:*** *Machine Learning, Deep Learning, Reinforcement Learning, Natural Language Processing, Data Structures & Algorithms*
- ***Design and Documentation:*** *UML Designs, Software Documentation*
- ***Robotics and Automation:*** *ROS, Kinematics*
- ***Operating Systems and Hardware:*** *ARM, Embedded Systems*
- ***Security and Other Disciplines:*** *Cyber Security, Object-Oriented Programming (OOP), Image Processing*

Problem solving(cp)

I am a senior problem solver, having participated in numerous contests with significant achievements, I've solved over 2000 problems across various competitive programming platforms.

- Codeforces (max. specialist): https://codeforces.com/profile/samsapi0l
- Leetcode: https://leetcode.com/u/samsapi01/
- VJudge: https://vjudge.net/user/abdelrhamnsaeed
- AtCoder: https://atcoder.jp/users/abdelrhamn

LANGUAGES

- Arabic: Native
- English: Conversational

REFERENCES

- References available on request