Qaiser khan

Experience	1 year 7 mons
Current salary	75000
Created at	16th April, 2022
Last modified	28th July, 2024

Dynamic Mechatronics Engineer specializing in AI and Robotics, equipped with a diverse skill set. Proficient in computer vision and image processing, with the ability to create intelligent systems . Adept at SolidWorks designing for precise mechanical solutions and skilled in MATLAB for advanced algorithm development. Passionate about crafting intelligent machines that revolutionize industries. Eager to bring expertise in these areas to your team and drive innovation in the world of mechatronics.

Personal Information

Email	qkhan.mts21ceme@student.nust.edu.pk	**Date of birth**	12th March, 1998
Contact No#	03189000211 , 03439813071	**Gender**	Male
CNIC #	17101-9368952-7	**Domicile City**	Mohmand
Country	Pakistan	**City**	Islamabad
Address	Shah Allah Ditta, post code 45220		

Education

NATIONAL UNIVERSITY OF SCIENCES AND TECHNOLOGY, ISLAMABAD , RAWALPINDI
MASTERS (3.31 CGPA)
Mechatronics , AI and Robotics
2021 - 2024

I have completed my coursework and now in my research phase that is going to be completed in 2024

UNIVERSITY OF ENGINEERING AND TECHNOLOGY, PESHAWAR
BSC (2.78 CGPA)
Mechatronics
2016 - 2020

Mechatronics is combination of electronics, mechanical and computer engineering. Our expertise mainly contain embedded systems, Iot applications, Artificial intelligence and automaton.

Experience

NUST PDC
ROBOTICS (STEM INSTRUCTOR)
2024 - 2024

During this summer camp, I had the opportunity to teach Scratch, TinkerCad, Arduino programming, Basic Electronics to kids from Grade 2 to Grade 10.

NUST
RESEARCH AND TEACHING ASSISTANT
2023 - 2024

Devoted Research and Teaching Assistant dedicated to advancing knowledge and nurturing future talents. Proficient in conducting rigorous research, data analysis, and experimental methodologies. Passionate about sharing insights and fostering learning through engaging classroom instruction, mentorship, and curriculum development. Committed to supporting both the pursuit of academic excellence and the growth of students.

ADVANCED ROBOTICS AND AUTOMATION LAB
INTERNEE
2020 - 2020

During my internship, I worked on intelligent sprayer machine and trained various computer vision models for detection of tobacco plants, fruit flies detection and counting, and also calculation of rpm of motors using encoders etc.

Skill

TinkerCAD
Excellent
Last used -

TinkerCad is a online simulation platform for basic electronics, Arduino Uno programming platform.

Scratch Programming
Excellent
Last used -

Scratch is block programming and animation software for kids

Computer vision and Machine learning
Excellent
Last used -

Computer Vision and Machine Learning Expertise: Proficient in the dynamic intersection of computer vision and machine learning, with a knack for training algorithms to 'see' and 'learn' from data. Skilled in designing and implementing image recognition, object detection, and pattern recognition systems. Experienced in leveraging machine learning models to unlock insights from visual data, making technology smarter and more intuitive. Ready to drive innovation by combining these cutting-edge fields to solve real-world challenges

Signal Processing
Excellent
Last used -

Signal Processing Proficiency: Experienced in the art of transforming and analyzing signals, whether in audio, video, or data form. Skilled in employing advanced algorithms and techniques to extract valuable information, reduce noise, and enhance the quality of signals. Proficient in solving complex problems related to signal analysis and manipulation, contributing to improved data interpretation and decision-making.

Data Annotation
Good
Last used -

I am skillful Data Annotator

Image processing
Excellent
Last used -

Image Processing Expertise: Proficient in harnessing the power of image processing techniques to analyze, enhance, and manipulate visual data. Skilled in using various software tools and algorithms to extract valuable insights, detect patterns, and solve complex problems in fields such as computer vision and medical imaging. Adept at optimizing image quality and clarity, contributing to more informed decision-making and innovative solutions.

Solidworks
Excellent
Last used -

Proficient in SolidWorks, a leading 3D CAD design software, with a proven track record of creating precise and innovative mechanical designs. Skilled in leveraging SolidWorks' powerful features to model, simulate, and visualize complex engineering solutions. Proficient in designing and drafting, enabling the seamless development of products and systems. Capable of transforming ideas into detailed, functional, and manufacturable designs, enhancing project efficiency and quality.

Python
Good
Last used -

Python is another widely used programming language in many fields like robotics, image processing, computer vision etc

C++
Good
Last used 16th April, 2022

C++ is a basic programming language widely used across all platforms.

Embedded systems
Excellent
Last used 16th April, 2022

During my studies, I worked on various microcontroller projects like gas leakage detection and temperature meaurement using thingspeak(IOT platform). Another project was IR remote based control of leds. Familier with arduino uno, esp 32, FPGA etc

MATLAB
Excellent
Last used 16th April, 2022

Matlab is a very basic tool used for mathematics, deep learning, image processing, computer vision etc.

Project

Fire and Smoke detection using advanced computer vision techniques (Nust)
Researcher
1st August, 2023 - 30th April, 2024

This study explores using advanced computer vision techniques to detect fires and smoke more effectively. The goal is to create a reliable system capable of quickly identifying and classifying fire and smoke patterns in different visual environments. By using smart image processing and machine learning, this system aims to provide early detection of fires and improve the ability to respond promptly.

The significance of this research lies in its potential to create a proactive approach to fire safety. With the integration of these advanced computer vision technologies, the system aims to reduce response times, minimize damages, and ultimately contribute to a safer environment for various communities.

IR remote based control of leds (NUST Eme)
main lead
1st November, 2021 - 1st January, 2022

This project was based on IR sensor and remote to turn on and off leds etc using Microcontroller.

Gas leakage and temperature monitoring using IoT platform (Thingspeak) (Nust EME)
main lead
1st November, 2021 - 1st January, 2022

This project was based on ESP32 wifi-modul. The main idea of the project was to monitor temperature of room and find gas leakage if any and show the calulated value on Thingspeak online.

Fruit flies detection and counting using computer vision (ARAL)
Researcher
1st July, 2020 - 30th November, 2020

Tobacco and weeds detection and classification using computer vision (Advanced Robotics And Automation Lab)
Research Internee and Data collector
1st July, 2020 - 30th November, 2020

Tobacco and Weeds Detection and Classification Using Computer Vision: This cutting-edge application harnesses the power of computer vision technology to address two significant agricultural challenges. By leveraging sophisticated algorithms and machine learning techniques, it enables the identification and differentiation of tobacco plants from weeds in real-time. This innovative approach has the potential to revolutionize farming practices by enhancing precision agriculture, reducing herbicide use, and ultimately increasing crop yields.

Brain tumor detection and segmentation (UET Peshawar)
main lead
29th September, 2019 - 29th September, 2020

During my Bsc, I worked on Computer aided diagnosis of brain tumor as Final year project. And got A- grade.

Certification

Computer Vision using MatLab From (MatLab)
- 25th July, 2024

Deep Learning with MatLab From (MatLab)
- 26th May, 2024

Image processing From (MatLab)
- 1st October, 2022

Certificate of Participation From (Universal Robots Academy)
- 21st March, 2022

Certificate of Participation From (Navrachana University)
- 13th March, 2021

Machine learning methods for image and video processing.

References

Dr. Kunwar Faraz Ahmed
Professor *at* **Ceme, National University Of Sciences And Technology (Nust)** (2 years)
Professional
kunwar.faraz@ceme.nust.edu.pk
+923329089929

Dr. Umer Asgher
Dy Director (Qa) And Adjunct Prof. Smme *at* **National Universty Of Sciences And Technology** (4 years)
Professional
umer.asgher.research@gmail.com
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