



# Owais Ahmed

## Software Engineer


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### EDUCATION

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#### Kennesaw State University,


Aug 2025 – present | Marietta, GA, U.S.

*PhD in Interdisciplinary Engineering* 

Pursuing a PhD in Interdisciplinary Engineering, while working as a Graduate Research Assistant. My responsibilities include developing intelligent systems capable of performing various complex tasks

#### NED University Of Engineering and Technology,

Oct 2019 – Oct 2023 | Karachi, Pakistan

*Bachelor of Engineering* 

Major in Computer and Information Systems Engineering.

**Cumulative GPA:** 3.63/4.0

**Relevant Coursework:** Software Engineering; Artificial Intelligence; Machine Learning

### PROFESSIONAL EXPERIENCE

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#### Rehani Soko LLC, Machine Learning Engineer (Remote)

Dec 2025 – present | Washington, U.S.

Rejoined Rehani Soko LLC as Machine Learning Engineer.

#### Sibisoft (Pvt.) Ltd, Software Engineer (AI/ML)

Jan 2024 – Dec 2024 | Karachi, Pakistan

- Implemented Django backend solutions for seamless front-end communication.
- Integrated Langchain and Langsmith to enhance system efficiency and intelligence.
- Developed multi-action agents with Langchain for responsive chatbot functionalities.

#### Rehani Soko LLC, Machine Learning Engineer (Remote)

Jan 2023 – Dec 2023 | Washington, U.S.

- Engineered a data collection pipeline from global real estate websites.
- Implemented pipeline to predict house prices using time series model.
- Developed a real estate chatbot using modern technologies.

#### My AskAI, Python AI Developer (Remote)

Feb 2023 – Nov 2023 | London, England

- Developed a robust backend infrastructure using Python and Quart.
- Designed APIs to interface with modern stack & integrated bots for WhatsApp and Discord.
- Orchestrated backend flow for text extraction and embedding generation for efficient Q&A capabilities.
- Developed a system where the client can fine-tune the LLM model on his data.

#### CrossWing Inc., Machine Learning Engineer (Remote)

Jun 2022 – Jan 2023 | Ontario, Canada

- Trained CV models using YOLO models for enhanced tracking contributing to workshop automation.
- Data collection for car parts to train demand forecasting models.

- Developed various regression models for demand forecasting, including BlockRNN, Catboost, and XGBoost, optimizing inventory management and resource allocation.

**Profecia Links**, *Software Engineer Grade A1 (Remote)* [🔗](#)

Apr 2021 – Jul 2022 | Dubai, UAE

- Implemented web scrapers in JavaScript for extracting data from various e-commerce websites using a custom framework of import.io [🔗](#)

## PROJECTS

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**IntelliLift RoboNavigator**, *Personal project (In Progress)* [🔗](#)

Aug 2024 – present

A robotics project that integrates a robotic arm mounted on a mobile platform to autonomously detect, navigate towards, and manipulate(lift) objects based on natural language commands using 6D pose estimation of the object.

**Road Object Detection and Tracking with DeepSORT and YOLOv7**, *Personal project* [🔗](#)

The project **[Demo]** [🔗](#) is designed to enhance road safety and traffic management by accurately detecting and tracking objects on roads and highways. Uses YOLOv7 and DeepSORT for object detection on BDD100K dataset.

**Optimal Robotic Arm Gripper**, *FYP*

The Final Year Design Project aims to improve object grasping and manipulation in warehouses. It features an autonomous robotic arm that efficiently retrieves items from any defined place using dual monocular cameras for 6D object pose estimation and machine learning for grasping strategies.

**American Sign Language (ASL) Detection**,

*Personal Project* [🔗](#)

This project demonstrates the use of YOLOv8 for detecting American Sign Language (ASL) gestures.

**SmartScan Billing Assistant**, *For Local Supermarket* [🔗](#)

SmartScan Billing Assistant is a computer vision project that automates bill calculation by detecting and pricing products using a camera, like a cashier. It uses the YOLOv8 model for object detection and tracking. This MVP was implemented for a supermarket, covering over 1,200 products.

**Facial Emotion Detection**, *Personal Project* [🔗](#)

Facial Emotion Detection **[Demo]** [🔗](#) using YOLOv8 is a Flask web application designed to detect facial emotions in real-time. Leveraging the power of the YOLOv8 model, this project offers a robust solution for identifying a range of emotions directly from images or webcam feeds.

Dataset URL: Human Facial Emotions Dataset on Roboflow [🔗](#)

**Workshop Forecasting using Classical Models**,

*Personal project* [🔗](#)

Flask application **[Demo]** [🔗](#) designed to perform forecasting using classical models. The application allows users to select from a variety of forecasting models to predict future values based on a dataset collected from a real workshop.

## Human Sense Ads, *Yellowworks* [↗](#)

Human Sense Ads **[Demo]** [↗](#) is a project designed to detect humans, extract their features, and generate personalized messages using a language model (LLM) to grab their attention toward advertisements displayed on a screen

## RESEARCH EXPERIENCE

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### NED University of Engineering and Technology,

Aug 2021 – Jul 2022

#### Research Assistantship [↗](#)

Research Assistant to Dr. Majida Kazmi on an Urdu OCR project, contributing to the advancement of character recognition in the Urdu language.

### Independent Research

Jan 2024 – present

Conducting independent research on large language models to explore their potential applications and advancements.

## TEACHING EXPERIENCE

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### iCodeGuru, *Moderator & Trainer* [↗](#)

- Serving as a volunteer trainer at ICodeGuru, a platform established by Silicon Valley engineers to support underprivileged students in Pakistan.
- At ICodeGuru, we teach, train, mentor, and guide students from deprived areas of Pakistan to enhance their professional skills. I teach coding to these students and help them solve Leetcode problems.
- Recent session [↗](#)

### Pak Angels, *Trainer* [↗](#)

- I moderated an online Generative AI course focused on LangChain, Retrieval-Augmented Generation (RAG), and LangGraph, where I led interactive discussions, guided hands-on applications, and trained underprivileged students from the community.
- Recent session [↗](#)

## PUBLICATIONS

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- Ahmed, Owais. (Aug 2023). **An Integrated Approach to Robotic Object Grasping and Manipulation Using 6D Pose Estimation.** [↗](#) 10.13140/RG.2.2.30428.19847.

## INTERNATIONAL HACKATHONS

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### Strawberry Reasoning with o1 [↗](#)

**Objective:** Build a tool or application using OpenAI's o1 new model to automate complex problem-solving.

**Project Name:** Paul Graham Life Coach AI App **[Repository]** [↗](#) **[Demo]** [↗](#)

#### Key Contributions:

- Developed a life coaching assistant modeled after Paul Graham's persona offering personalized business advice.

- Integrated voice synthesis to generate audio responses using ElevenLabs API resembling Graham's voice.
- Designed and deployed the application using Streamlit for a seamless user experience.
- Collaborated with Simon Olsen, co-founder of Lab Lab AI, whose idea sparked the project's direction.

### **Llama 3 AI Hackathon** [↗](#)

**Objective:** Develop an innovative AI-powered solution using Llama 3

**Project Name:** DataWizard, Data Science Assistant **[Repository]** [↗](#) **[Demo]** [↗](#)

**Key Contributions:**

- Led the development and AI team in the 48-hour hackathon
- Utilized Pandas AI Agent for backend development
- Designed and developed a simple, intuitive UI using Streamlit and also deployed it.

### **Next2 Edge Runners Hackathon** [↗](#)

**Objective:** Develop an innovative AI-powered solution that can be elevated to an AI startup

**Project Name:** Caduceus - Your Tool for Your Health **[Repository]** [↗](#)

**Key Contributions:**

- Developed a multi-agent chatbot using Langchain
- Implemented multiple sub-agents to help users with different health-related issues.
- Developed whole application on Django (backend) and React.js (frontend)

### **Meta Hacker Cup 2024** [↗](#)

Competed in Meta's global programming competition, solving complex algorithmic challenges against top talent from around the world.

See here: **Certificate** [↗](#)

## **HONORS AND AWARDS**

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- Winner of company wide hackathon at Sibisoft, 2024.
- Top Rated Freelancer at Upwork, 2023. [↗](#)
- 100% Job Success Badge at Upwork, 2021.
- Participant of C# Fellowship at Mindstorm Studios, 2020.
- Recipient of NED Alumni Association of Houston Scholarship, 2020.

## ADDITIONALS

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**Test Scores** — Duolingo English Test (135/160) [↗](#)

**Programming Languages** — Python, JavaScript

**Frameworks** — React, Node, Flask, Django, Streamlit, FastAPI, Tornado, Quart, Gradio

**Developer Tools** — Git, Docker, VS Code, Jupyter, PyCharm, Postman, Mantis, Jira

**Machine Learning Skills** — Computer Vision, Demand Forecasting, LLMs, NLP

**Databases** — MongoDB, MySQL, PostgreSQL, Vector Databases

**Libraries** — Langchain, Pytorch, Keras, TensorFlow, Scipy, Bokeh, PyBrain, Langsmith

**Robotics & Simulation Tools** — ROS, Gazebo