

# Muhammad Huzaifa

## Software Engineer

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🌐 LinkedIn Profile 🐙 Github Profile

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### 📄 SUMMARY

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Software Engineer with experience in AI/ML applications, full-stack web development, and automation. Built award-winning AI systems (3rd Prize, Solana Breakout Hackathon) and deployed production-ready LLM applications (RAG chatbots, semantic recommenders, AI weather summaries). Passionate about research at the intersection of machine learning, automation, and scalable systems.

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### 👛 PROFESSIONAL EXPERIENCE

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#### Rehani Soko LLC — Remote 🔗

Software Developer & Technical Support Specialist

Apr 2023 – present  
Washington D.C.,  
United States

- Engineered automated pipelines to collect and clean **50k+ property listings/month** from global real estate websites, improving dataset reliability by 35%.
- Developed and optimized features for a **Vue.js + Django real estate platform**, enhancing data visualization and search.
- Built scripts for **data preprocessing & consistency checks**, enabling smoother integration into downstream AI models.

#### Agent Arc — Remote 🔗

Frontend Lead Developer

Jan 2025 – Jul 2025  
Singapore

- Led frontend development for a **non-custodial AI trading terminal** on Solana; built entirely in **Next.js 15** with staking and wallet integration.
- Designed secure **Privy-based login & session management**, reducing onboarding friction for 100+ early users.
- Collaborated on integrating **AI/ML API endpoints** for automated trade execution; project won 🏆 **3rd Prize in AI Track (8,300+ entries)** at Solana Breakout Hackathon.

#### Lovum Group — Remote (Part-Time) 🔗

Software Engineer

Jan 2024 – Present  
United States


- Building **Next.js + Python** applications i.e. **EduEssential** and **Waridi**, focusing on high-performance, scalable UI and backend systems.
- Contributed to **API design & integration**, ensuring seamless data flow across frontend, backend, and ML-driven features.

## Algorithm Consulting (Pvt) Ltd

Junior Developer

May 2024 – Oct 2024

Karachi, Pakistan

- Contributed to the development of an **ASP.NET  enterprise application**, implementing new features and resolving high-priority bugs.
- Worked closely with senior engineers to **optimize backend performance** and improve release stability.

## CrossWing Inc. — Remote

Full Stack Developer

Mar 2023 – Nov 2023

Ontario, Canada

- Built and maintained **React.js web applications** used in AI-powered robotics solutions.
- Collaborated with **AI/ML engineers and product managers** to deliver features bridging robotics hardware and web-based interfaces.

## Profecia Links Consulting Pvt. Ltd. — Remote

Software Engineer Grade A1

May 2022 – Aug 2022

Abu Dhabi, UAE

- Automated **data extraction workflows** using Import.io , improving collection efficiency for client datasets.

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## EDUCATION

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### NED University of Engineering & Technology

Bachelor of Engineering

2019 – 2023

Karachi, Pakistan

- Major in Computer and Information Systems Engineering.
- Cumulative GPA: 3.289/4.0
- Relevant Coursework: Data Structures and Algorithms, Software Engineering, Artificial Intelligence, Machine Learning.

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## SKILLS

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**Frontend Development** — Vue.js • React.js • Next.js • Tailwind CSS

**Backend Development** — Node.js • Express.js • Django • Flask • ASP.NET  (C#)

**AI/ML** — OpenAI API • LangChain • Embeddings & Vector Search • Scikit-learn • Pandas • NumPy

**Data Mining & Automation** — Selenium • BeautifulSoup • Puppeteer • Python Scripting

**Databases** — PostgreSQL • MySQL • MongoDB • Firestore • GraphQL

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## PROJECTS

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### Optimal Robotic Arm Gripper, FYP

2023

Robotics, Computer Vision, AI

- The Final Year Design Project aims to improve object grasping and manipulation in warehouses.

- Designed an autonomous robotic arm using dual monocular cameras for **6D object pose estimation** and **ML-driven grasp strategies**.
- Implemented **kinematic & inverse kinematic modeling** for real-time object retrieval in warehouse scenarios.

### F1GPT — Formula One AI Chatbot

Aug 2025

*Next.js 15, RAG, GPT-5, LangChain, Astra DB, Puppeteer*

- Built a **Retrieval-Augmented Generation (RAG) chatbot** for F1 insights, driver stats, and rules.
- Developed scrapers & chunking pipelines, stored embeddings in **Astra DB**, and integrated a **GPT-5 API layer** for contextual Q&A.

### LLM Semantic Book Recommender

Jul 2025

*LangChain, Vector DB, GPT APIs*

- Created an **embeddings-based recommender** that indexes books into a vector database for semantic retrieval.
- Used **LLM re-ranking** to provide **context-aware, beyond-keyword recommendations** with natural-language justifications.

### AI Weather App

2023

*Next.js 13, OpenAI API, Tremor Charts, Tailwind CSS*

- Developed a weather dashboard fetching forecasts from **Open-Meteo API** and generating **LLM-written daily summaries**.
- Visualized time-series data with Tremor charts, styled with Tailwind.

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## PUBLICATIONS

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### An Integrated Approach to Robotic Object Grasping and Manipulation

Aug 2023

*arXiv*

- Co-authored research paper exploring autonomous robotic grasping using **6D object pose estimation, computer vision, and ML-driven strategies**.
- Proposed an AI-enabled robotic system capable of handling uncertain object positions in warehouses with adaptive strategies.