


# Muhammad Abdurrahman Ismath

AI Research Engineer

✉ [abdurrahman@souk-ai.co.uk](mailto:abdurrahman@souk-ai.co.uk) ☎ +447944271742 📍 London, United Kingdom  LinkedIn  GitHub

## PROFILE

AI researcher and founder of an AI startup, with strong expertise in Python, Data Analytics, and Machine Learning. Experienced in leading AI-focused projects, managing engineering teams, and leveraging AI to solve business problems. Always eager to deepen technical expertise, collaborate on innovative research, and contribute to impactful AI applications.

## PROFESSIONAL EXPERIENCE

<b>AI Automation Engineer</b> <i>Taswiq (SMMA)</i>	01/2025 – Present Remote, United Kingdom
<ul style="list-style-type: none"><li>Built a social media marketing agency that aims to leverage AI automation to drive lead generation and boost customer engagement.</li><li>Researching and learning about marketing automation platforms such as GoHighLevel to streamline CRM, outreach, and campaign workflows.</li><li>Exploring AI-driven ad targeting, analytics, and automation strategies to enhance social media growth for businesses.</li><li>Developing a client acquisition strategy and refining business operations while upskilling in AI marketing tools and automation techniques.</li></ul>	
<b>AI Research Engineer   Technical Founder</b> <i>SoukAI</i>	11/2024 – Present London, United Kingdom
<ul style="list-style-type: none"><li>Prototyped and oversaw the development of an AI matchmaking system leveraging vector-based similarity metrics to deliver personalized experiences for sellers and buyers, while actively exploring cutting-edge techniques for future enhancements.</li><li>Collaborated with AI Engineers to build an AI-powered solution that streamlines contract verification and document processing while embedding a state-of-the-art privacy layer for data protection.</li><li>Oversaw the integration of the AI broker system, enabling automated negotiation and deal facilitation between buyers and sellers, aiming to significantly reduce transaction timelines from months to days.</li><li>Led industry research with the co-founder for data-driven decision-making, engaging 100+ oil and gas professionals to refine SoukAI's models and ensure real-world applicability.</li></ul>	
<b>Co-founder</b> <i>ForwardTech Solutions</i>	11/2023 – Present London, United Kingdom
<ul style="list-style-type: none"><li>Co-founded a consultancy to assist UK businesses in building their online presence, helping those without websites establish a robust digital footprint.</li><li>Led business development efforts, identifying potential clients and defining technical requirements.</li><li>Developed an outreach strategy to acquire potential clients, though the project remains a work in progress.</li><li>Managed a team developing a web scraping system using Companies House APIs to extract business contact details.</li><li>Oversaw the planning of a Google Maps-based system to identify businesses without websites.</li><li>Coordinated additional services such as web development, branding, and graphic design.</li></ul>	

## PROJECTS

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### Analyzing Honey Production

01/2023 – 02/2023

*Data Analytics Project*

Developed a predictive model using Scikit-learn's linear regression to forecast honey production trends. Leveraged Pandas, NumPy, and Matplotlib for thorough data cleaning and visualization, showcasing the practical application of regression analysis for real-world forecasting.

### Collaborative LLM-Based Translation Platform

05/2025 – present

- GitHub-style platform to support collaborative translation and editing of classical and contemporary Arabic texts using LLMs.
- System features include Arabic PDF upload, AI-based text extraction, side-by-side translation view with synchronized scrolling, and Git-style comment/suggestion workflows.
- Currently researching accurate AI translation pipelines, version control logic for long-form text, and multilingual UI/UX for translators and editors.

### ML-Based Classification of Fires vs. Explosions in Conflict Zones (NASA FIRMS Data)

08/2025 – 09/2025

- Built an end-to-end ML system distinguishing wildfires from explosions using NASA VIIRS/MODIS satellite time-series.
- Implemented Random Forest, XGBoost, LSTM, CNN, and ensemble models, achieving 80–85% F1-score for explosion detection.
- Engineered temporal-spatial features (FRP patterns, clustering, onset/decay slopes) for robust classification.
- Deployed production pipeline with real-time API, GeoJSON outputs, and interactive Leaflet.js dashboard.
- Open-source project supporting humanitarian orgs in conflict monitoring and rapid emergency response.

## EDUCATION

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### Machine Learning & AI Specialization

11/2024 – Present

- LLMs, NLP, prompt engineering, and AI-powered applications.
- AI model deployment techniques, including Streamlit for AI applications.

### Git, GitHub, Linux, and LeetCode Workshop

06/2024 – Present

*Imperial College London x StemMuslims*

Hands-on training in Git & GitHub for AI/ML projects, Linux fundamentals for development environments, and LeetCode practice to boost algorithmic thinking and coding efficiency.

### 100 Days of Code: The Complete Python Pro Bootcamp

2022

*Udemy*

### CS50X Introduction to Computer Science

2022

*Harvard University*

### BSc Applied Physics

2019 – 2021

*St Mary's University Twickenham*

London, United Kingdom

Modules cover mathematical techniques, physics fundamentals, communication and teamwork skills, data analysis, and computational tools for processing and visualizing information.

## SKILLS

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- **AI & Machine Learning:** Supervised Learning, Ensemble Methods, Deep Learning, Time-Series Modeling, Geospatial ML, Feature Engineering, Model Evaluation, SHAP Explainability, OCR + LLM Pipelines, AI Agents for Document Automation.
- **Data & Analytics:** Data Preprocessing, Time-Series Aggregation, SQL, Pandas, NumPy, Matplotlib, Plotly, Scikit-learn.
- **Development & Deployment:** Python 3, TypeScript, React, Next.js, FastAPI, Flask, PostgreSQL, Real-time Dashboards, Git/GitHub.
- **Soft Skills & Business:** Leadership, Team Management, Client Acquisition, Networking, Entrepreneurial Mindset, Business Operations.