

MUHAMMAD ARHAM HUSSAIN KHAN

AI/ML Engineer | Full Stack Developer | React.JS

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SUMMARY

Proficient Artificial Intelligence graduate with expertise in software development and problem-solving based on data. Background in building multi-agent LLM workflows, scalable SaaS applications and impactful business intelligence dashboards. Excellent at the algorithmic research to product user perspective. Desire to apply knowledge of machine learning, database systems, workflow automation to help teams develop innovative technology.

EDUCATION

FAST UNIVERSITY

BS in Artificial Intelligence

Karachi, Pakistan

AUG 2022 – JUN 2026

- Achievement: 2x Dean's List of Honors (Fall 2025 and Spring 2026)
- **Relevant Coursework:** Artificial Intelligence, Data Structures and Algorithms, Database Systems, Machine Learning, Agentic AI, Recommender Systems, Probability and Statistics

THE CITY SCHOOL

A - Levels & O - Levels

Karachi, Pakistan

AUG 2016 – JUN 2022

- O-LEVELS: 2A*S AND 3 AS

EXPERIENCE

NEXIUM ENTERPRISES

Web Development Intern

Karachi, Pakistan

Jun 2025 – Jul 2025

- Developed and deployed two full-stack SaaS-style applications using Next.js and low-code automation via n8n, contributing to a workflow that helped over 50 users.
- Accelerated delivery cycle by implementing reusable database modeling frameworks and modular schema structures across three projects, reducing onboarding time for new features by 30%.
- Enhanced team productivity via mentoring sessions, leading weekly code reviews, debugging workshops that resolved 95% of project queries and improved peer code coverage.

PROJECTS

SHOPBUDDY – EXPLAINABLE AI SHOPPING ASSISTANT

MAR 2026 – JUN 2026

[GITHUB.COM/ARHAM2003/SHOPBUDDY-XAI-SHOPPING-ASSISTANT](https://github.com/ARHAM2003/SHOPBUDDY-XAI-SHOPPING-ASSISTANT)

- Engineered a multi-agent orchestration pipeline using LangGraph and FastAPI, coordinating 6 specialized agents (Scraper, Analyzer, Explainer) to provide transparent, step-by-step AI reasoning for product comparisons across Amazon and Daraz.
- Integrated "Human-in-the-loop" approval checkpoints and currency normalization using Gemini 3 Flash and Llama 3.3 (Groq), ensuring high-fidelity data processing and cross-platform price transparency.
- Developed a full-stack MVP within a 24-hour hackathon using React and Supabase, implementing an Explainability Narrator agent that generates plain-English reports to justify AI-driven product rankings and trust signals.

POWER BI DASHBOARD – BUSINESS INTELLIGENCE (FREELANCE)

NOV 2025 – DEC 2025

- Led a Power BI visualization project for a freelance client analyzing Starbucks UK store operations, translating business goals into causal loop diagrams, activity models.
- Identified and defined high-impact KPIs from the strategic models to measure operational efficiency, customer behavior, and revenue drivers across stores.
- Delivered a polished 4-page Power BI dashboard with interactive visuals and insights to support data-driven decisions aimed at maximizing revenue.

PITCH CRAFT – AI PITCH WRITER APP

arham-pitchcraft.vercel.app

Jul 2025 – Aug 2025

- Developed and deployed Pitch Craft, an AI-powered pitch writer web app using Next.js, Tailwind CSS, and Lenis, designed with a modern SaaS-style UX including landing and pricing pages.
- Engineered password less authentication with Supabase magic links, integrated MongoDB for persistent user data and AI-generated pitch storage, and implemented route protection with Next.js middleware.
- Automated AI workflows using n8n, delivering features like Investor Email Draft Assistant and 30-Second Pitch Rewriter, with usage limits enforced via a monthly credit system for free-tier users.

BLOG FOCUS – BLOG SUMMARIZATION WEB APP (NO LLMs)

arham-blogfocus.vercel.app

Jul 2025

- Built a full-stack blog summarization app leveraging cosine similarity and manual phrase mapping, eliminating reliance on LLMs while achieving consistent summary quality across diverse blog types.
- Implemented user authentication, saved blog storage using PostgreSQL, enhancing user experience and boosting retention metrics in testing scenarios by over 30%.

- Designed custom Urdu translation logic via static phrase mapping, improving accessibility for regional users without external translation APIs.

Amazon Product Recommender System

amazon-product-recommender-jet.vercel.app

May 2025 – Jun 2025

- Built a content-based product recommendation system based on Amazon product metadata TF-IDF vectorization and cosine similarity, and precomputed similarity matrices to speed up the real time inference when the recommendation is requested.
- Put into place a quantitative measurement methodology that involved Mean Average Precision (MAP) against a ground truth based on categories and contents.

TECHNICAL ATS RESUME EXPERT

[TECHNICAL-RESUME-EXPERT.STREAMLIT.APP](https://technical-resume-expert.streamlit.app)

Jan 2025 – Feb 2025

- Developed an LLM powered resume assistant using Gemini API and Streamlit, which provided resume feedback aligned with ATS standards and helped 50+ users optimize their applications.
- Built a modular pipeline to extract keywords, match them to job descriptions, and generate actionable revision suggestions, improving resume alignment scores by 20% on average.
- Deployed live version and shared tool in technical communities, receiving 300+ visits in the first week.

OTHER PROJECTS

Final Year Project, BS Artificial Intelligence

Aug 2025 – Jun 2026

argumint-blog.vercel.app

 **Team Leader:**

Textual Arguments to Image Generation/Retrieval

- Designed and implemented a text-to-image generation pipeline focused on single-sentence textual arguments, emphasizing concise semantic abstraction while preserving the core visual claim.
- Created prompt representations for multiple image generation models, evaluated and compared these models, and tested the performance of each model in terms of generation time, coherence and quality of the generated images.

CERTIFICATIONS

GITHUB FOUNDATIONS EXAM

Apr 2024 – Jun 2024

- Earned certification with an 83% score, demonstrating proficiency in Git, version control, and GitHub Actions
- Aced the exam after 3 days of focused preparation and hands-on practice

WORK SMARTER WITH MICROSOFT EXCEL

- Applied core Excel fundamentals and formulas to build a practical Sales Report project focused on structured analysis and clear insights.

HackerRank: SQL (Advanced) Certificate