

SOHAIL HAROON

APPLIED AI | MACHINE LEARNING | DATA ANALYTICS | FULL-STACK AI

Austin, TX | x-ai-ml.com | [GitHub](#) | [LinkedIn](#) | [Email](#)



PROFESSIONAL PROFILE

Applied AI/ML and full-stack AI application professional translating business questions into reproducible analytics, predictive models, deep-learning solutions, grounded generative-AI applications, and production web products.

Demonstrated end-to-end delivery through seven public AI/ML case studies plus ListingsEdge AI, a live production SaaS covering AI integration, authentication, data persistence, payments, deployment, and iterative release management.

CORE CAPABILITIES

Generative AI

RAG, embeddings, semantic search, vector stores, prompt design

Machine Learning

Classification, regression, ensembles, tuning, model evaluation

Deep Learning

Neural networks, CNNs, transfer learning, image augmentation

Analytics & Full-Stack Delivery

EDA, visualization, Next.js, Node.js, APIs, deployment

TECHNOLOGY STACK Python | Pandas | NumPy | Scikit-learn | TensorFlow | Keras | XGBoost | Chroma | LangChain | Next.js | Node.js | TypeScript | Supabase | Stripe | Vercel | OpenAI API | Flask | Streamlit | Docker | Git

SELECTED PROJECT EXPERIENCE

- **ListingsEdge AI - Production Full-Stack AI SaaS:** Built and launched a production real-estate marketing application that transforms property inputs into MLS-ready descriptions, social captions, email content, property highlights, open-house content, and downloadable marketing materials using Next.js/Node.js, TypeScript, OpenAI API, Supabase, Stripe, and Vercel. [Live site](#) ➡
- **Medical Assistant - Generative AI / RAG:** Built a retrieval-augmented assistant that grounds answers in trusted medical-reference content using document processing, embeddings, semantic retrieval, vector storage, and controlled prompting. [Case study](#) ➡
- **SuperKart - Forecasting & Deployment:** Delivered an end-to-end retail sales forecasting workflow covering feature engineering, regression benchmarking, tuning, API packaging, containerization, and interactive delivery. [Case study](#) ➡
- **HelmNet - Computer Vision:** Developed a safety-helmet compliance classifier using convolutional networks, transfer learning, fine-tuning, augmentation, and evaluation designed for operational risk awareness. [Case study](#) ➡
- **ReneWind - Predictive Maintenance:** Designed neural-network models for wind-turbine generator failure prediction, emphasizing class-imbalance handling and recall-focused evaluation for proactive maintenance decisions. [Case study](#) ➡

PORTFOLIO IMPACT

- One live production AI SaaS plus seven complete public AI/ML case studies spanning analytics, classical ML, deep learning, computer vision, deployment, and RAG.
- Business-oriented model assessment using metrics selected for the decision context, including recall, F1, error analysis, and feature importance.
- Reproducible repositories with notebooks, reports, documentation, visuals, dependencies, and clear project narratives.

ADDITIONAL PROJECT EXPERIENCE

- **EasyVisa - Advanced Ensemble Learning:** Built a visa-outcome prediction workflow using bagging, boosting, stacking, hyperparameter tuning, feature-importance analysis, and interpretable business conclusions. [Case study](#) 
- **Personal Loan Campaign - Classification:** Created customer-propensity models for targeted loan marketing using exploratory analysis, data preparation, multiple classifiers, tuning, and campaign-focused evaluation. [Case study](#) 
- **FoodHub - Data Analytics / EDA:** Analyzed food-delivery orders to identify customer behavior, restaurant performance, cuisine demand, rating patterns, delivery timing, and revenue opportunities. [Case study](#) 

DELIVERY APPROACH

01 FRAME

Translate objectives into measurable analytical or ML questions.

02 BUILD

Prepare data, establish baselines, train and tune candidate models.

03 VALIDATE

Evaluate against decision-relevant metrics and conduct error analysis.

04 DELIVER

Package results in reproducible code, APIs, full-stack apps, deployments, and clear recommendations.

EDUCATION & PROFESSIONAL DEVELOPMENT

The University of Texas at Austin

Post Graduate Program in Artificial Intelligence and Machine Learning: Business Applications

AREAS OF EXPERTISE

- Data quality assessment, exploratory analysis, visualization, and stakeholder-ready findings
- Feature engineering, supervised learning, ensemble methods, hyperparameter tuning, and model comparison
- Neural networks, CNNs, transfer learning, class-imbalance strategies, and recall-focused validation
- Document ingestion, chunking, embeddings, vector retrieval, grounded prompting, and RAG evaluation
- Deployment-oriented packaging with Flask, Streamlit, Docker, GitHub, and reproducible documentation
- Full-stack AI application development with Next.js/Node.js, OpenAI API, Supabase, Stripe, Vercel, and Git

PROFESSIONAL LINKS

Portfolio: <https://x-ai-ml.com>

GitHub: <https://github.com/sohailharoon777>

LinkedIn: <https://www.linkedin.com/in/x-ai-ml/>

Live SaaS: <https://listingsedgeai.com>