Insaf Hashem

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Machine Learning Developer· Python, Deep Learning, Generative AI · Translating AI Models into Strategic Insights

Generative AI & Machine Learning Developer with hands-on experience **designing and deploying AI solutions**, including **deep learning**, **classical ML models**, and **generative AI applications**. **Proficient in Python, NLP, and LLMs**, with practical exposure to **AI agents** and **RAG workflows**. **Developed real-time fault detection systems**, achieving measurable **efficiency improvements**, and **collaborated on cross-functional projects** to apply AI insights in practical problem-solving scenarios.

WORK EXPERIENCE

StartMeUp.ai · Remote · 06/2025 - 08/2025
AI Engineer · Internship

- **Built** and **deployed autonomous AI agents** using **LLMs** and TypeScript to automate tasks such as content generation and post scheduling.
- **Leveraged OpenAI API** for natural language understanding and automating article creation workflows.
- **Managed version control and deployment** via **GitHub**, ensuring reliable execution of **AI agents in production**.

Zaka.ai · Remote · 02/2025 - 04/2025
Machine Learning

- **Led a team of 3** to develop a **Real-Time Electrical Fault Detection System** using **Local Outlier Factor** and **Random Forest models**, improving **system reliability** and **detection accuracy**.
- **Processed and analyzed time-series data** from simulated **3-phase systems** and presented results via an **interactive Flask dashboard**.
- **Designed an efficient ML pipeline**, including **low-latency inference**, **signal preprocessing**, and **model integration**, demonstrating **practical problem-solving skills**.

EDUCATION

Bachelors in Computer Science
Jinan University JU • Lebanon • GPA: 3.3 • 11/2022 - 07/2025

CERTIFICATIONS

AI Workflow Specialization · 06/2025 - 09/2025
IBM

Machine Learning Specialization(AIC) · 09/2024 - 04/2025
Zaka.ai

PROJECTS

Customer Segmentation & RFM Analysis · 06/2025 - 09/2025
- **Collaborated in a team of 2** to perform **Customer Segmentation** on **>600k retail transactions** using **RFM (Recency, Frequency, Monetary) analysis**, identifying clusters such as **high-value (top 10%)** and **at-risk customers (bottom 15%)**.
- Delivered **actionable insights** for **targeted marketing strategies**, helping **increase engagement potential by ~12%** in simulations.
- Developed a **scalable system adaptable for multiple retail brands**, processing **datasets faster** than manual methods.

Food Habit Tracking App · 04/2025 - 06/2025
Jinan University
- **Developed a Conditional Variational Autoencoder (CVAE)** for **recipe generation** using **nutrition data** and 50k+ **user inputs**.
- Implemented **Dynamic Masking** and trained on a **cleaned nutrition dataset** to improve model **adaptivity**.
- Built the **web application** using **React** and **TypeScript**, demonstrating end-to-end **AI product deployment**.

Food Dataset Cleaning using Gemini API · 04/2025 - 04/2025
- **Extracted structured data** from **50k+ unstructured recipe entries** using the **Gemini API**, increasing data usability for AI applications.
- Applied **prompt engineering, data cleaning, and input formatting**, improving **data quality and consistency by ~20%**.
- Prepared a **high-quality AI-ready dataset**, enabling downstream **recipe generation and analytics projects**.

SKILLS

Machine Learning & AI Frameworks: Flask, Gradio, Hugging Face Transformers, Keras, Matplotlib, Matplotlib, NLTK, NumPy, Pandas, PyTorch, Scikit-learn, SciPy, Seaborn, spaCy, Statsmodels, TensorFlow

Cloud Platforms & Deployment: AWS, Docker, GCP, REST APIs Model deployment & ML Ops basics

Programming Languages & Tools: Git, Jupyter Notebook, Linux, MySQL, Python, SQL, VS Code

AI & Machine Learning Expertise: AI Agents, Anomaly Detection, LLMs, Named Entity Recognition, Natural Language Processing, Prompt Engineering, Regularization, Retrieval-Augmented Generation, Statistical Modeling, Tokenization, Vectorization

Consulting & Business-Relevant Skills: Analytical & problem-solving mindset, Applying AI to practical problem, Cross-functional collaboration & teamwork, Dashboard