

Insaf Hashem

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| [LinkedIn](http://www.linkedin.com/in/insaf-hashem): www.linkedin.com/in/insaf-hashem | Lebanon | Open to Relocation
Machine Learning Developer | Python, Deep Learning, Generative AI | Translating AI
Models into Strategic Insights

Professional Summary

Generative AI & Machine Learning Developer with expertise in **Deep Learning, NLP, and LLMs**, skilled in **Python programming** and **AI deployment**. Strong background in **Problem-Solving, Cross-Functional Collaboration**, and **Leadership**, demonstrated by leading 2 end-to-end AI initiatives and contributing to 3 multi-disciplinary projects. Proficient in **RAG workflows, AI agents, and MLOps practices**, delivering measurable outcomes such as real-time fault detection and recommendation systems.

Education

Jinan University, Tripoli, Lebanon
B.S. in **Computer Science**, CGPA: 3.3 /4.0.

Sep 2022 - Jun 2025

Certifications

Employment Hub Program 2025 Round 2

Sep 2025 - Present

- Focused on career readiness, professional networking, and employability skills development.

IBM AI Workflow Specialization, [Coursera](#) (offered by IBM)

Jul 2025 - Sep 2025

- Covered the **AI project lifecycle, feature engineering, ML model training, and deployment**. Built and deployed a **revenue prediction model** using **Python, Scikit-learn, and Flask**, applying **workflow automation** and **data processing best practices**.

Machine Learning Specialization, [Zaka.ai](#)

Sep 2024 – May 2025

- Covered **Data Science Fundamentals, ML Algorithms, Deep Learning, NLP, Computer Vision, ML Ops, and Research**.
- Completed **10+ hands-on projects**, including **fine-tuning an LLM with LoRA & quantization** for a **medical QA chatbot (Hugging Face, bitsandbytes)** and building a **Seq2Seq translation model** with **LSTM/GRU + Attention** in **TensorFlow/Keras**.

Experience

AI Agents Developer at [StartMeUp.ai](#) - Remote

Jun 2025 - Aug 2025

- Deployed autonomous AI agents using **LLMs** and **TypeScript** for tasks such as **SEO-optimized article generation, image integration, auto-publishing and scheduling posts**.
- Leveraged the **OpenAI API** for natural language understanding and content creation, and used **GitHub** for workflow automation, version control, and seamless deployment in production environments.

Machine Learning Engineer Trainee at [Zaka.ai](#) - Remote

Feb 2025 - Apr 2025

- **Led a team of 3** to develop a Real-Time Electrical Fault Detection System using ML models, achieving **90%+ accuracy** on 20k+ time-series entries.
- Delivered **low-latency (<0.1s) inference** with UDP communication, preprocessing, and a **Flask dashboard** for visualization.

Projects

LinkedIn Post Structure Generator using n8n and lovable

Oct 2025

- **Automated** the entire content creation workflow - input a topic and get **SEO-optimized articles** (1500+ words) with **proper structure**, **keyword density**, and **meta descriptions** in minutes instead of hours
- **Achieved 80+ SEO scores** consistently through **intelligent keyword distribution**, **semantic analysis**, and **automated post-optimization** using GPT-4o-mini integration

Customer Segmentation and RFM Analysis for a specific retail brand

Jun 2025 - Aug 2025

- Collaborated in a **Team of 2** to perform **Customer Segmentation** ([here](#)) using **RFM** (Recency, Frequency, Monetary) analysis for a retail brand, identifying **customer clusters** such as high value and at risk customers.
- Provided **actionable insights** for **targeted marketing strategies** based on **customer behavior patterns**.
- Built a **system** that can support better **customer targeting** for retail brands.

Food Habit Tracking App

Mar 2025 - Jun 2025

- Built a **Conditional Variational Autoencoder** with **3 encoder layers** and **5 decoder layers** for recipe generation using **nutrition data** and user **inputs**.
- Applied **Dynamic Masking** and trained on a **cleaned nutrition dataset** with 50k+ entries.

Cleaning Food Dataset Using Gemini API

Apr 2025

- Used **Gemini API** to extract structured data from unstructured recipe text ([here](#)), Focused on **prompt engineering**, **data cleaning**, and **input formatting**.

Technical Skills

- **Machine Learning & AI Frameworks:** Flask, Gradio, Hugging Face Transformers, Keras, Matplotlib, NLTK, NumPy, Pandas, PyTorch, Scikit-learn, SciPy, Seaborn, spaCy, Statsmodels, TensorFlow, 4bQuantization, LoRA/QLoRA.
- **Programming & Tools:** Python, JavaScript, SQL, Git, Jupyter Notebook, Linux, VS Code.
- **Cloud Platforms & Deployment:** AWS, GCP (Google Cloud Skills Boost Profile: https://www.cloudskillsboost.google/public_profiles/2a34c4d0-bcb4-41e5-86df-37208c697749), Docker, REST APIs, Model Deployment, MLOps Basics.
- **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.

Languages & Additional Information

- **Languages:** English: Fluent, French: Intermediate, Spanish: Basic, Arabic: Native.
- **Interests:** AI for Sustainability, Puzzle Solving, Data Ethics.

