# Hisham Barakat

AI Engineer — Infra & Generative AI — Built & Scaled GenAI Platform from  $3 \rightarrow 30$  Models

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### **Technical Skills**

**Languages:** Python, C++, Java, SQL, YAML

**Technologies:** PyTorch, TensorRT, Diffusion, NLP, CV, Hugging Face, Transformers, LangChain, PEFT, BitsAndBytes, OpenAI, Anthropic Claude, FastAPI, Uvicorn, Flask, Docker, Kubernetes, AWS, GCP, Power BI, Git, CUDA

## **Experience**

# Lead AI Engineer (collaborative project), Jiangsu Huaxiang Digital Technology Group Co.,Ltd

Sept 2024 – Present

- Spearhead a scalable image & video generation platform; grow model count  $3 \rightarrow 30$  and serve them via FastAPI/Uvicorn REST APIs.
- **Boost** GPU-bound **image-generation** throughput by 3.5× and cut average latency by 60% while maintaining 100% success, leveraging per-model CUDA streams, dynamic batching, and CPU/IO multithreading.
- Fine-tune Whisper (Arabic ASR), Spark-TTS (Arabic TTS), and Qwen-3 LLM with LangChain, Transformers, LoRA/PEFT, and Unsloth.
- **Deploy** containerized APIs on cloud with **Docker**; add auto-scaling, OSS-stack logging, and real-time dashboards in **Power BI**.
- Mentor 3 junior engineers, drive code reviews and best-practice guides, and lift team velocity by 20%.

#### IP Engineer, Huawei Technologies Bahrain W.L.L

Sept 2022 - Aug 2023

- Developed **Python-driven automation** scripts that cut network deployment time by over **50%**.
- Performed network patching, deployment, and maintenance for multiple clients under strict SLAs, ensuring 100% network availability.
- Configured and optimized routing protocols including IPv6, BGP, EIGRP, OSPF, and RIP.

#### Data Science & AI Engineer, Tatweer Petroleum

Sept 2021 – Aug 2022

- Collaborated with two production teams to aggregate and clean over **1M data points** from **6** systems using AWS.
- Conducted diagnostic analyses to uncover root causes of oil loss, driving process changes that saved over \$100K.
- Developed and automated 15+ Power BI reports, reducing manual extraction workload by 10%.
- Presented findings and recommendations to stakeholders, fostering data-driven decision-making.

#### **Solutions Architect Intern, Amazon Web Services**

Feb 2021 – Jun 2021

- Implemented a cost-effective, end-to-end serverless face-mask detection dashboard using AWS Rekognition, Lambda, S3, and DynamoDB—cutting expenses by 95%.
- Deployed **Amazon DeepLens** for facemask detection with over **90**% accuracy and integrated **Lambda** functions with other AWS services.
- Led a team of 5 developers, communicated progress to customers, and monitored system health via CloudWatch.

### Education

### M.S. in Computer Science, Peking University

Sept 2023 - Present

- Courses: Computational Vision, Reinforcement Learning, Computer Networking, Advanced Systems.
- Optimize the Jittor backend for TensorLayerX's multi-backend AI framework.

# **Bachelor of ICT, Bahrain Polytechnic**

Sept 2017 – May 2021

# **Awards and Certifications**

- AWS Certified Machine Learning Specialty
- Commendation Letter from Huawei Bahrain CEO
- Huawei ICT Competition 2019: 3rd Place Global; 2nd Place Middle East & National