Liam Sabbagh

ML Researcher — Riyadh, Saudi Arabia

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Professional Summary

Experienced ML Researcher with a strong track record of building production-grade machine learning systems, from data engineering and model training to deployment and monitoring. Skilled in both research prototyping and scalable MLOps practices. Proven ability to lead cross-functional teams and deliver business impact.

Technical Skills

Data Visualization (Matplotlib/Seaborn), Azure ML, TensorFlow, Tableau, Reinforcement Learning, Linux, NumPy, MLflow, AutoML, AWS (S3, EC2, SageMaker)

Professional Experience

Deep Learning Engineer — InnoAl Labs (5 yrs)

- Implemented knowledge distillation to create lightweight transformer models for edge deployment with 3x speedup.
- Fine-tuned multilingual speech recognition model (wav2vec2) for domain-specific calls with 5% error reduction.
- Architected resume-parsing NLP pipeline using transformer-based models, custom NER, and rule-based post-processing to extract structured candidate data.

Al Engineer — Nova Analytics (2 yrs)

- Led an end-to-end image segmentation project for medical imagery; built data pipeline, trained U-Net variants, and reduced labeling time by 40%.
- Optimized model inference using TensorRT and mixed precision; achieved 2.5x throughput improvement on GPU.
- Fine-tuned multilingual speech recognition model (wav2vec2) for domain-specific calls with 5% error reduction.
- Implemented continuous training pipeline using DVC and GitHub Actions to automate model retraining and versioning.

Deep Learning Engineer — InnoAl Labs (2 yrs)

- Implemented knowledge distillation to create lightweight transformer models for edge deployment with 3x speedup.
- Deployed scalable inference service on AWS with autoscaling, containerization (Docker), and serverless endpoints; reduced latency to <120ms.
- Fine-tuned multilingual speech recognition model (wav2vec2) for domain-specific calls with 5% error reduction.
- Architected resume-parsing NLP pipeline using transformer-based models, custom NER, and rule-based post-processing to extract structured candidate data.

Al Engineer — CloudScale (1 yrs)

- Architected resume-parsing NLP pipeline using transformer-based models, custom NER, and rule-based post-processing to extract structured candidate data.
- Designed and implemented an anomaly detection system for fraud detection using autoencoders and XGBoost for post-filtering.
- Deployed scalable inference service on AWS with autoscaling, containerization (Docker), and serverless endpoints; reduced latency to <120ms.
- Fine-tuned multilingual speech recognition model (wav2vec2) for domain-specific calls with 5% error reduction.

Selected Projects

- Implemented continuous training pipeline using DVC and GitHub Actions to automate model retraining and versioning.
- Implemented knowledge distillation to create lightweight transformer models for edge deployment with 3x speedup.

- Built recommendation system using collaborative filtering + content-based features; increased CTR in A/B test by 12%.
- Fine-tuned multilingual speech recognition model (wav2vec2) for domain-specific calls with 5% error reduction.

Education

BSc in Computer Science — National University, 2014

Languages

Arabic (Native), French (Conversational)

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