Maryam Pour



vmvahdatpour@gmail.com



Experience

Senior Machine Learning Engineer

XGenAl - Sep 2022 - present - Remote

- Designed and deployed a **GenAl multi-agent chatbot** for fashion recommendation using an agentic architecture. Integrated **RAG** for dynamic knowledge retrieval and Langfuse for observability. Mapped agent workflows and engineered prompts across Claude and OpenAl models for task-specific interactions. Built **CI/CD pipelines** for automated testing, deployment, and iteration, improving system reliability and reducing latency in user response times.
- Developed a semantic search engine using domain-adapted CLIP, fine-tuned on fashion image-text pairs via contrastive learning to enhance cross-modal embedding alignment. Enabled a 25% increase in conversion rates across clients, including Coach, Marc Jacobs, Valentino, and Armani.
- Built and deployed a Complete-the-Look service combining **instance segmentation**, **multi-modal retrieval**, **and vision tagging**. Trained a model to segment lifestyle images into fashion items, CLIP to tag segmented regions by category, and **Google Vision AI** for image-based matching. Enabled precise product retrieval and outfit recommendation, driving measurable revenue lift for fashion clients.

Data/Machine Learning Engineer

Localintel, - Sep 2020 - Sep 2022 - Calgary, Canada

- Architected and optimized *ETL data pipelines* feeding multiple analytics applications, resulting in a 30% improvement in data processing efficiency and a 25% reduction in latency.
- Built custom NLP and Computer Vision platforms to automate insights and UI validation: leveraged GPT-3 to generate *natural language summaries* for client dashboards, boosting user engagement by 40%, and developed a TensorFlow-based *image similarity system* for automated screenshot testing, cutting QA time by 50% and improving UI consistency.

Machine Learning Engineer Intern

AltaML, - Jan 2021 - Mar 2021 - Calgary, Canada

- Extracted data modules using data mining techniques, enhancing **network diagram** accuracy by 25% and reducing processing time by 40%.
- Developed a ML module similarity technique with **Graph Neural Networks** to optimize rule application, improving consistency by 35%.

Machine Learning Engineer Intern

HEIG-VD, - Feb 2018 - Jun 2018 - Lausanne, Switzerland

Developed an **NLP-based chatbot** to analyze real-time user data and provide personalized skincare solutions, using KNN and Word2Vec to identify clusters and grouping the responses given a question.

Education

- Master of Science in Computer Engineering University of Calgary Aug 2018-Sep 2020
- Bachelor of Science in Computer Science University of Tehran Aug 2013- Sep 2017

Python (+8y)	Pandas,	LangChain,	DynamoDB,	AWS, GCP,	Git, Docker,	CI/CD, Flask
TensorFlow,	OpenCV,	LlamaIndex, GPT,	PostgreSQL,	ElasticSearch,	GitHub Actions,	App, FastAPI,
PyTorch	HuggingFace	Claude, Llama3	Neo4j	Airflow	Jenkins, GitLab	Power-BI





