Hossein Khalilian

AI Engineer | Data Scientist

Born 1994 in Tehran

About me

Experienced AI Engineer and Data Scientist with a Master's degree in Artificial Intelligence and over 5 years of specialization in machine learning and data science. Proficient in Python, PyTorch, and data visualization, with deep expertise in NLP, large language models, and speech recognition. Highly skilled in utilizing Docker, FastAPI, and vector databases for scaling applications. Demonstrated ability to enhance algorithm performance and provide actionable business insights. Dedicated to utilizing AI to tackle complex problems and improve product functionalities.

Skills

Python | Golang | SQL | PyTorch | Scikit-Learn | Transformers | Vector Databases | Data Preprocessing | FastAPI | Docker | Git | Label Studio | LangChain | Prompt Engineering | LLMs | MongoDB | Software Testing | Software Architecture

Contact

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hossein-khalilian.github.io

hossein-khalilian

Experience

Senior AI Engineer

Mirror Group

since November 2021

- Significantly enhanced speech recognition models for Persian, achieving a 28% performance improvement and reducing WER to 7.4%.
- Developed and optimized NLP models for text classification, summarization, and translation using Hugging Face Transformers, improving text retrieval accuracy and processing efficiency.
- Engineered recommendation systems increasing website traffic by 70%, and implemented efficient product matching for 6 million products, reducing processing time to 28ms.
- Deployed scalable machine learning solutions, including API development and containerization with Docker, enhancing deployment efficiency by 40% and labeling efficiency by 25%.
- Utilized prompt engineering with LLMs for high-quality text generation, streamlining content creation processes.
- technologies: Python, PyTorch, Huggingface Transformers, spaCy, Vector Databases, FastAPI, Docker, Label Studio, Git, Prompt Engineering, Large Language Models, LangChain

Machine Learning Engineer

Mofid Securities

April 2021 - September 2021

- Gathered, cleaned, and preprocessed data for training machine learning models, ensuring high-quality datasets for model development.
- Designed and trained machine learning models for anomaly detection in images using knowledge distillation techniques, achieving an accuracy of 92% and an improvement of 26% over previous models.
- Optimized model operations by converting and compressing trained models for improved inference time on CPUs, achieving an 88% reduction in latency.
- Dockerized projects and designed APIs for model integration, enhancing system scalability and accessibility.

Education

M.Sc. Computer Engineering - Artificial Intelligence

2018 - 2021

Specialized in Artificial Intelligence with a thesis on Distributed Deep Learning. Achieved 4th rank among 53 students in the program.

B.Sc. Information Technology

2013 - 2018

Graduated as the top student, 1st rank among 83 students. Completed a significant project on the Design and Implementation of a VoIP Gateway Device.

B.Sc. Electrical Engineering

2013 - 2018

Graduated in the top 10% of the class among 120 students. Gained comprehensive knowledge in electrical engineering principles and their applications.