

Certificates

As part of my extracurricular activities beyond my university coursework, I took courses from platforms like DeepLearning.AI, Coursera, Udemy, and Kaggle. I have earned certifications in Machine Learning, Deep Learning, Computer Vision, Video Processing, Natural Language Processing, Reinforcement Learning, Generative AI, as well as in specialized topics like Large Language Models (LLMs), Vision-Language Models (VLMs), Transformers, Model Quantization, LangChain, AI Agents, and Retrieval-Augmented Generation (RAG) systems. These activities have helped me strengthen my theoretical knowledge. A few of my certificates are listed below.

Kaggle Profile Overview

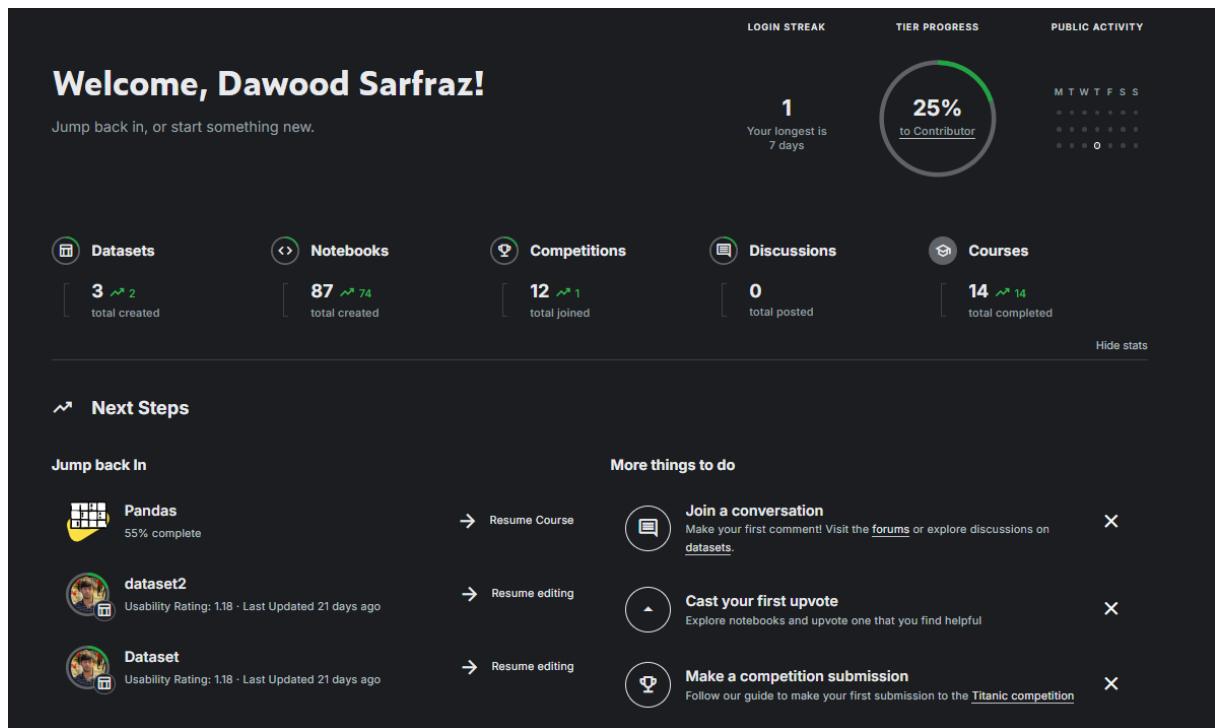


Figure 1: Kaggle Profile overview

Intro to AI Ethics



Figure 2: Intro to AI Ethics

Machine Learning Explainability



Figure 3: Machine Learning Explainability

Intro to Machine Learning



Figure 4: Intro to Machine Learning

Intermediate Machine Learning



Figure 5: Intermediate Machine Learning

Intro to Deep Learning



Figure 6: Intro to Deep Learning

Computer Vision



Figure 7: Computer Vision

Time Series



Figure 8: Time Series

Intro to Game AI and Reinforcement Learning



Figure 9: Intro to Game AI and Reinforcement Learning

Data Cleaning



Figure 10: Data Cleaning

Feature Engineering



Figure 11: Feature Engineering

Data Visualization



Figure 12: Data Visualization

Geospatial Analysis



Figure 13: Geospatial Analysis

Introduction to Machine Learning

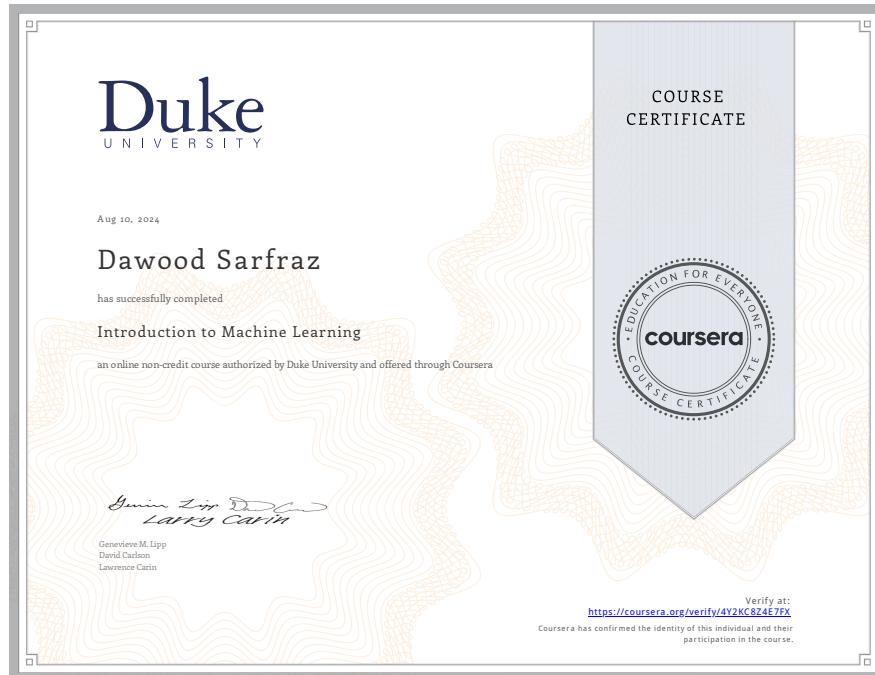


Figure 14: Introduction to Machine Learning

Supervised Machine Learning Regression and Classification

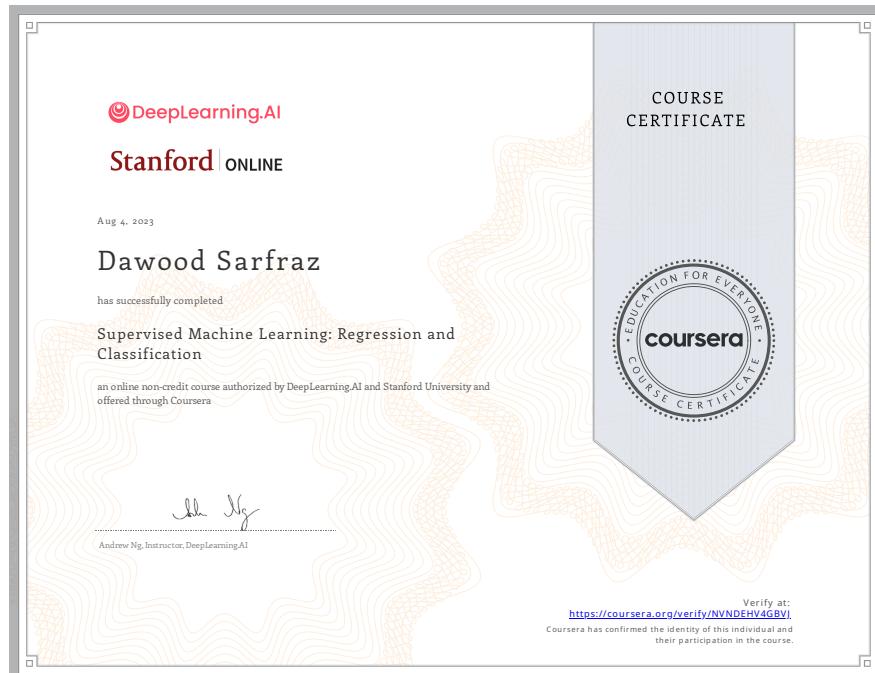


Figure 15: Supervised Machine Learning Regression and Classification

Natural Language Processing in TensorFlow

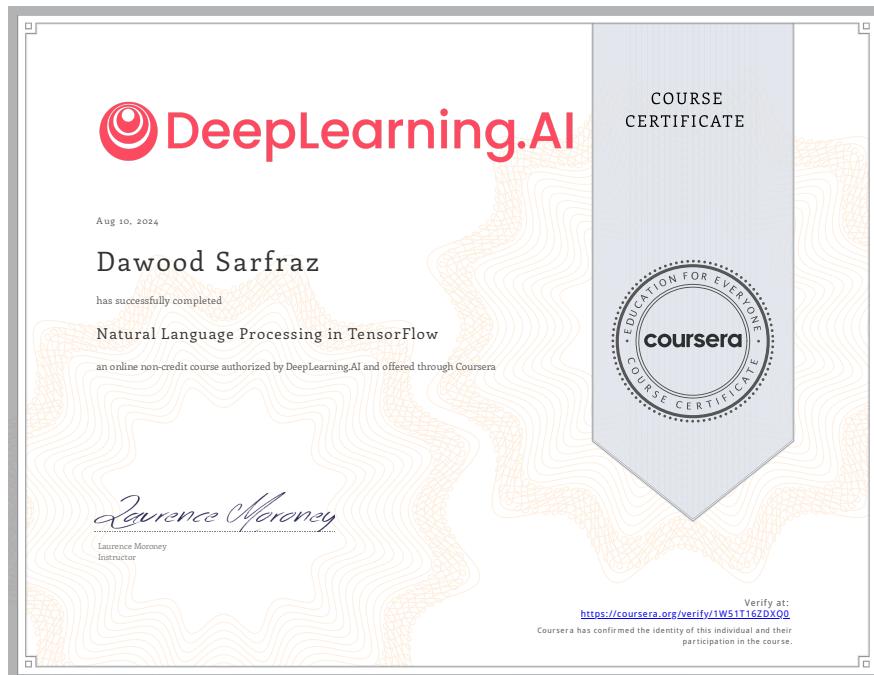


Figure 16: Natural Language Processing in TensorFlow

Sentiment Analysis, Beginner to Expert



Figure 17: Sentiment Analysis, Beginner to Expert

Project-Based Text Mining in Python



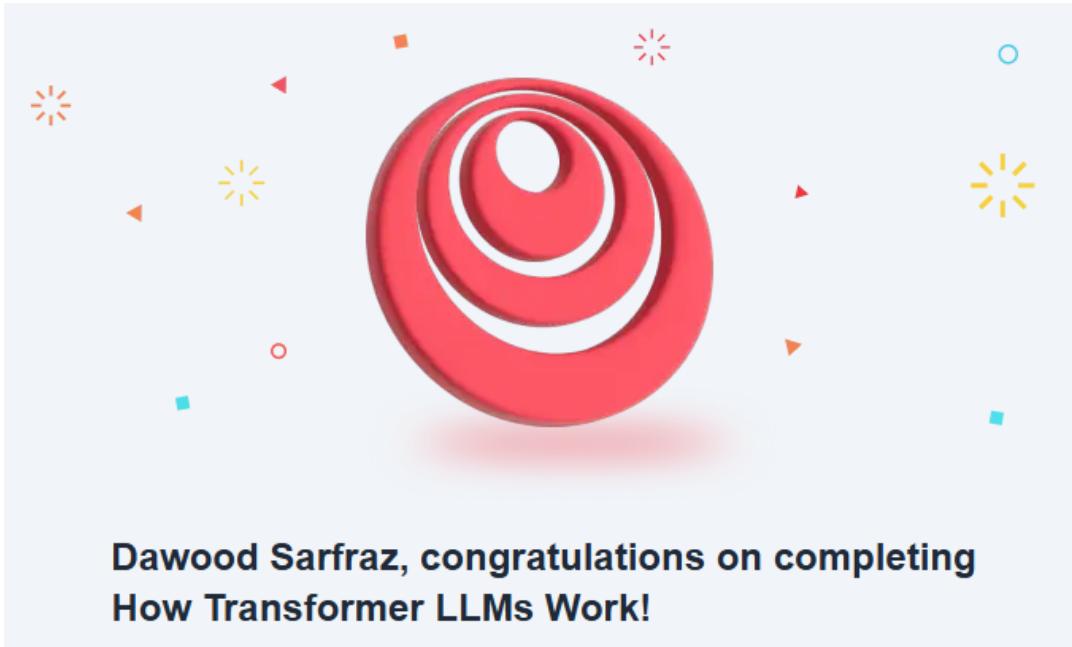
Figure 18: Project-Based Text Mining in Python

MATLAB Master Class: Go from Beginner to Expert



Figure 19: MATLAB Master Class: Go from Beginner to Expert

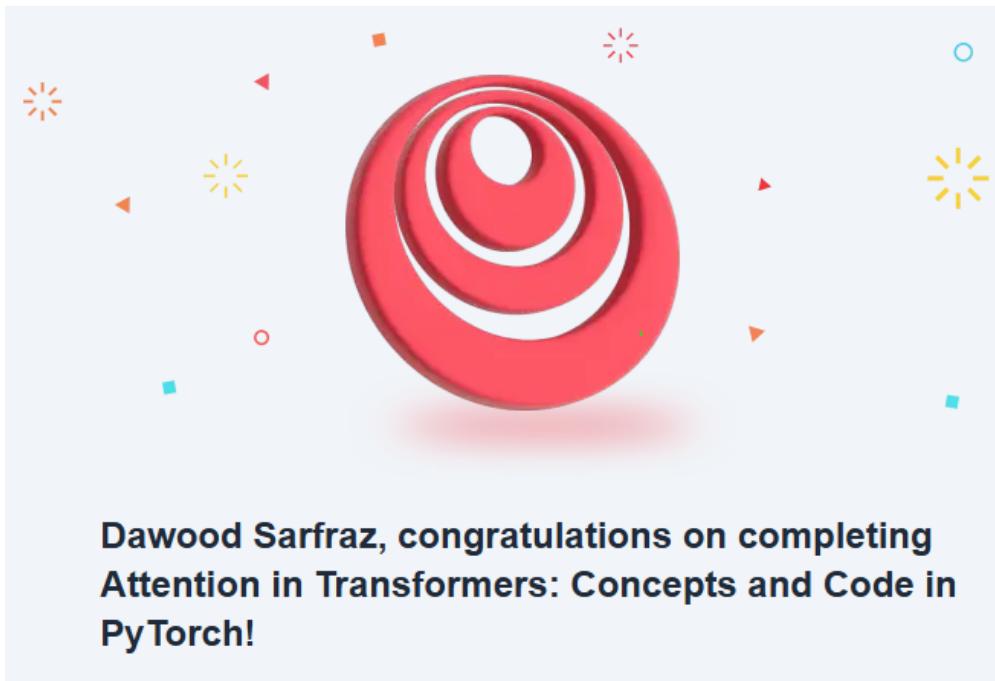
How Transformer LLMs Work



**Dawood Sarfraz, congratulations on completing
How Transformer LLMs Work!**

Figure 20: How Transformer LLMs Work

Attention in Transformers Concepts and Code in PyTorch



**Dawood Sarfraz, congratulations on completing
Attention in Transformers: Concepts and Code in
PyTorch!**

Figure 21: Attention in Transformers Concepts and Code in PyTorch

Getting Started with Mistral



Figure 22: Getting Started with Mistral

Quantization Fundamentals with Hugging Face



Figure 23: Quantization Fundamentals with Hugging Face

Quantization in Depth

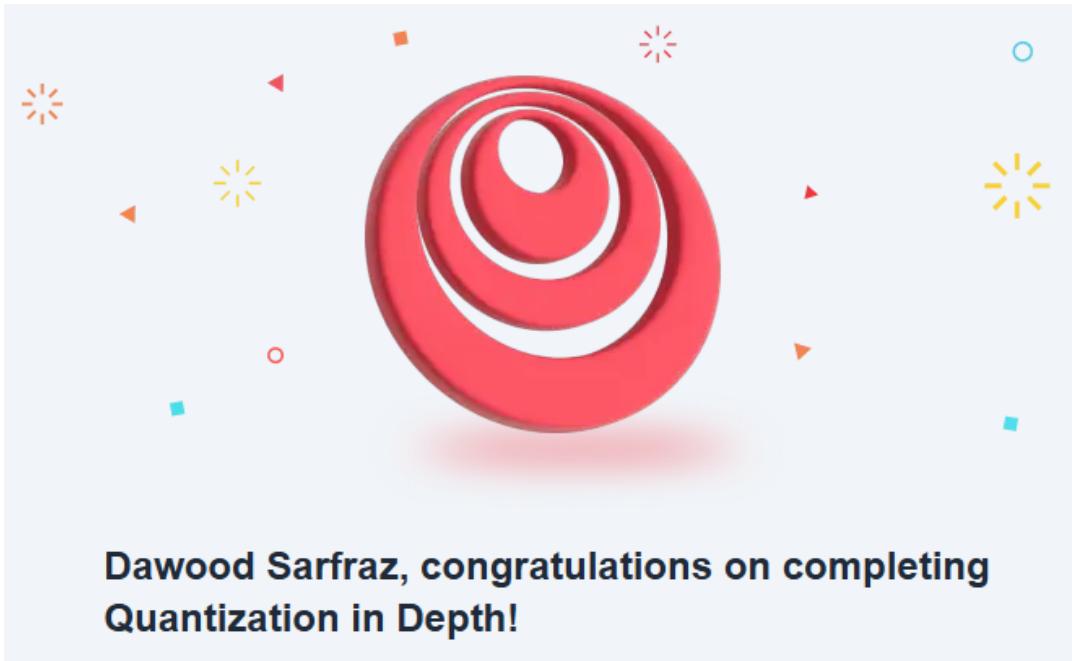


Figure 24: Quantization in Depth

LangChain Chat with Your Data

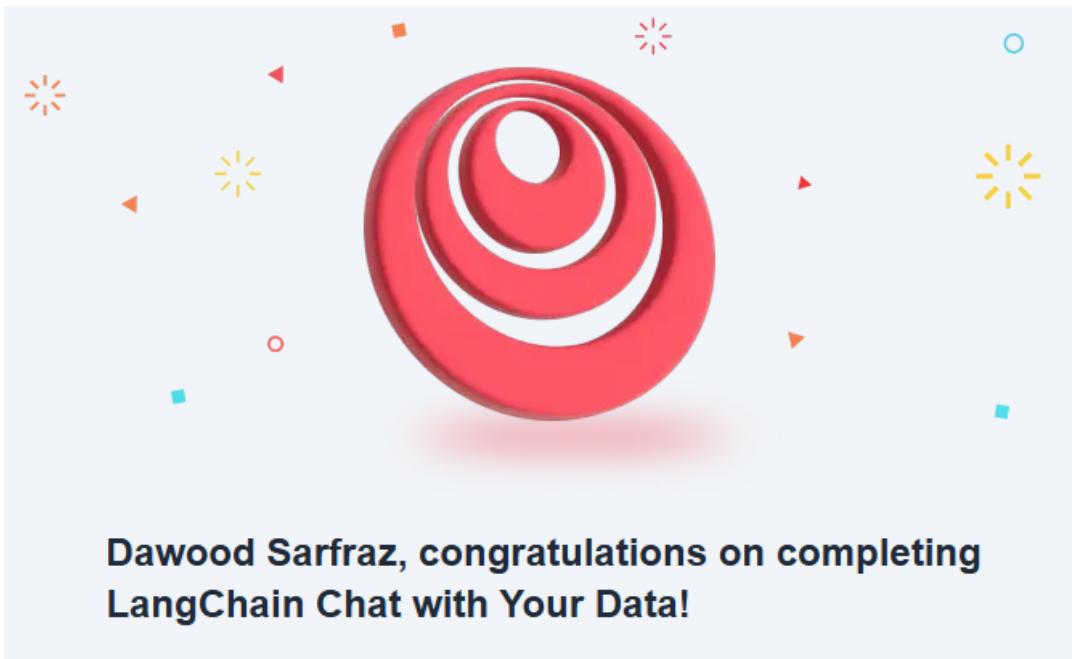
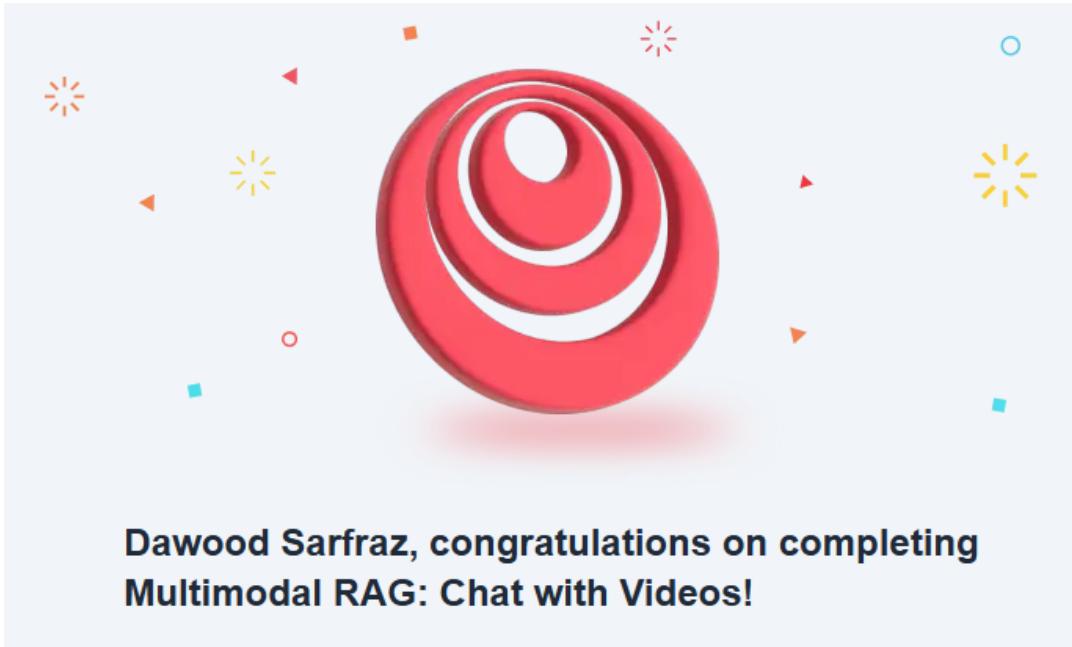


Figure 25: LangChain Chat with Your Data

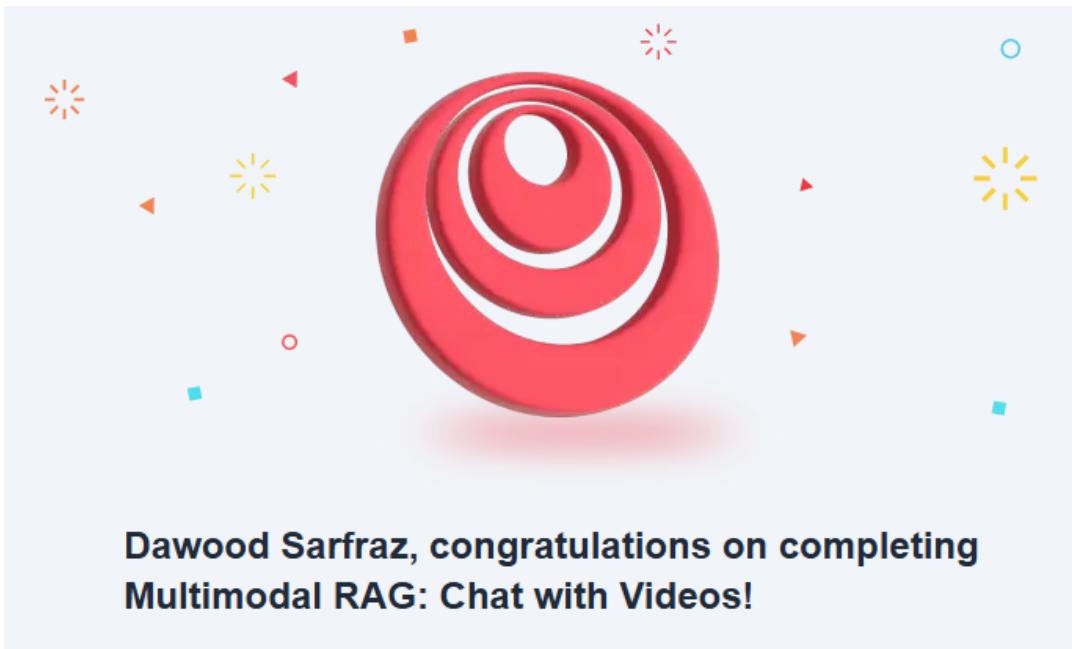
Multimodal RAG Chat with Videos



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Multimodal RAG: Chat with Videos!**

Figure 26: Multimodal RAG Chat with Videos

Multimodal RAG Chat with Videos



**Dawood Sarfraz, congratulations on completing
Multimodal RAG: Chat with Videos!**

Figure 27: Multimodal RAG Chat with Videos

Finetuning Large Language Models



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Finetuning Large Language Models!**

Figure 28: Finetuning Large Language Models

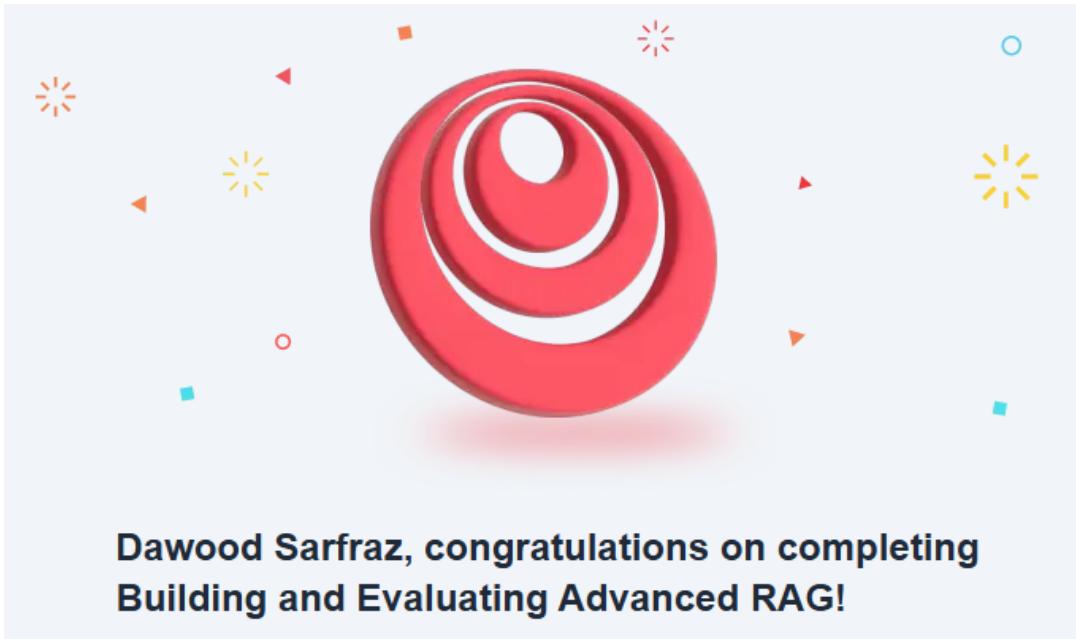
AI Agents in LangGraph



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Agents in LangGraph!**

Figure 29: AI Agents in LangGraph

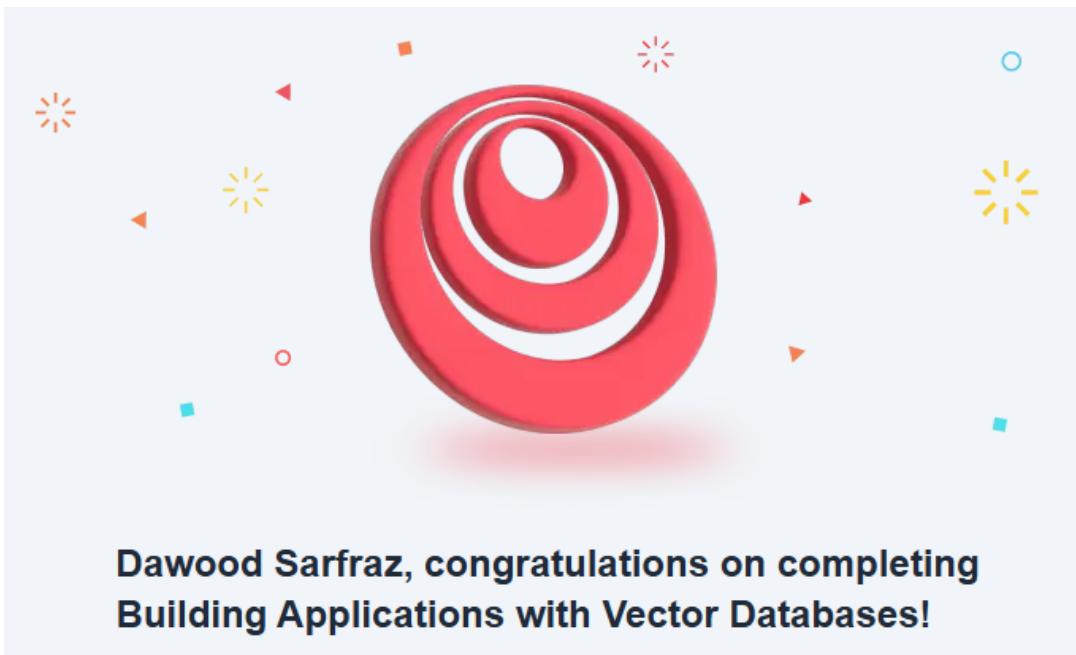
Building and Evaluating Advanced RAG



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Building and Evaluating Advanced RAG!**

Figure 30: Building and Evaluating Advanced RAG

Building Applications with Vector Databases



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Building Applications with Vector Databases!**

Figure 31: Building Applications with Vector Databases

Building Multimodal Search and RAG

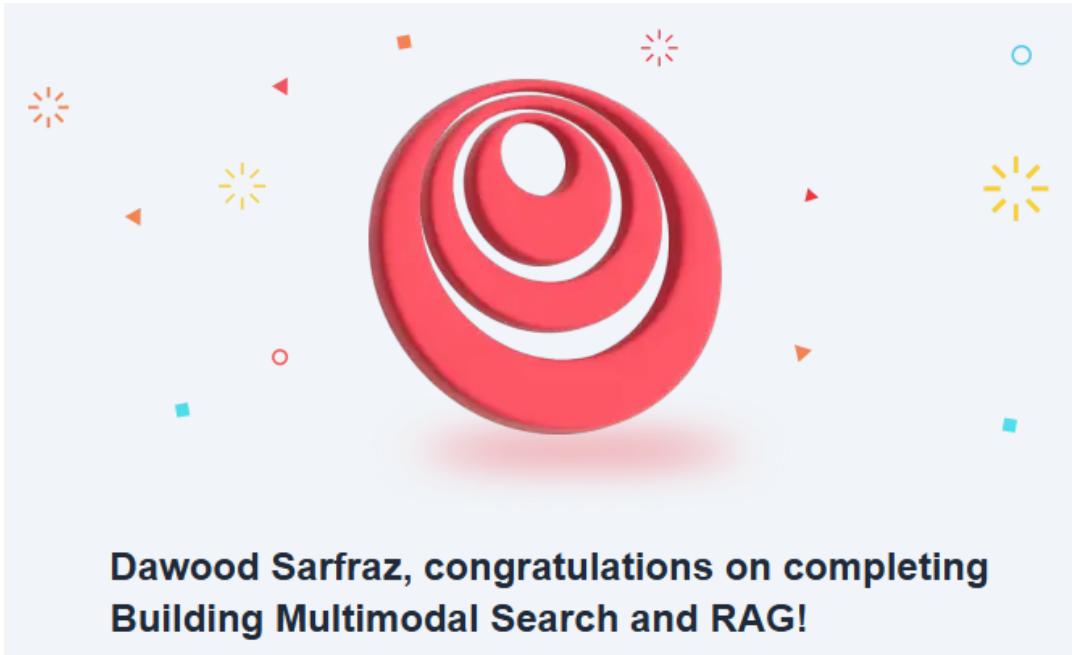


Figure 32: Building Multimodal Search and RAG

Prompt Engineering for Vision Models



Figure 33: Prompt Engineering for Vision Models

Prompt Engineering with Llama 2&3



Figure 34: Prompt Engineering with Llama 2&3

How Diffusion Models Work



Figure 35: How Diffusion Models Work

Introducing Multimodal Llama 3.2



Figure 36: Introducing Multimodal Llama 3.2

Vector Databases from Embeddings to Applications

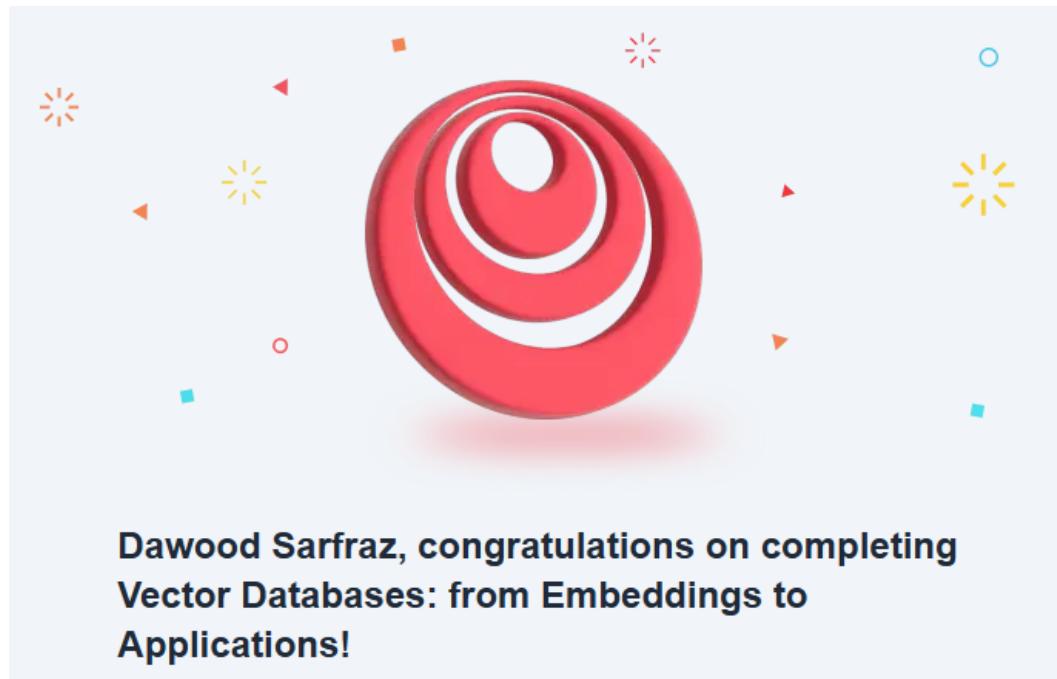


Figure 37: Vector Databases from Embeddings to Applications

Event-Driven Agentic Document Workflows

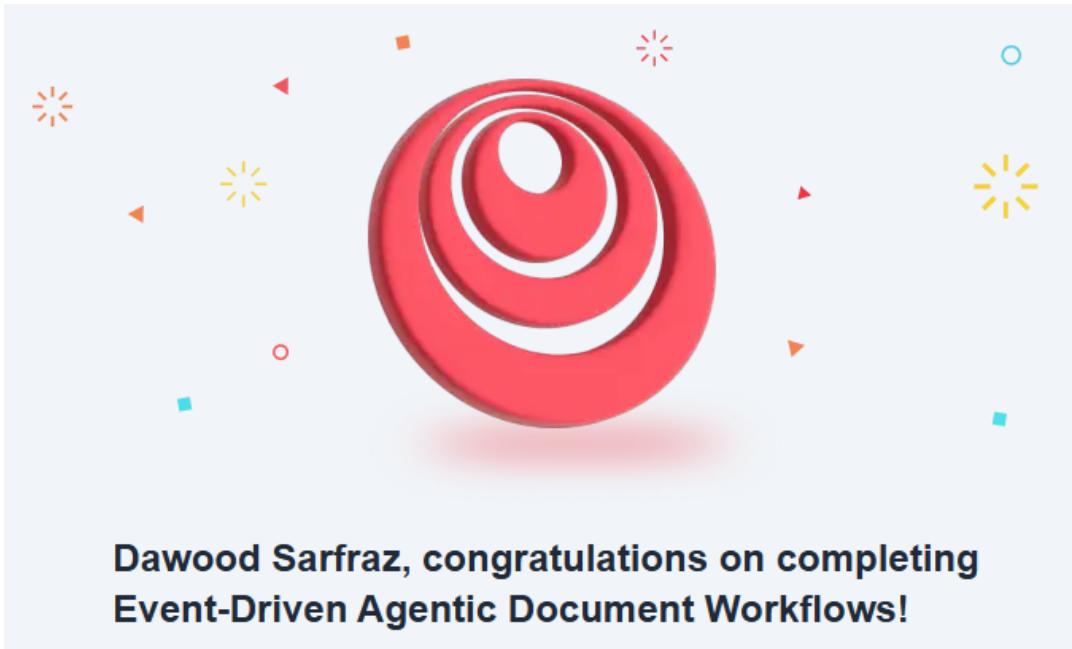


Figure 38: Event-Driven Agentic Document Workflows

Function-calling and data extraction with LLMs

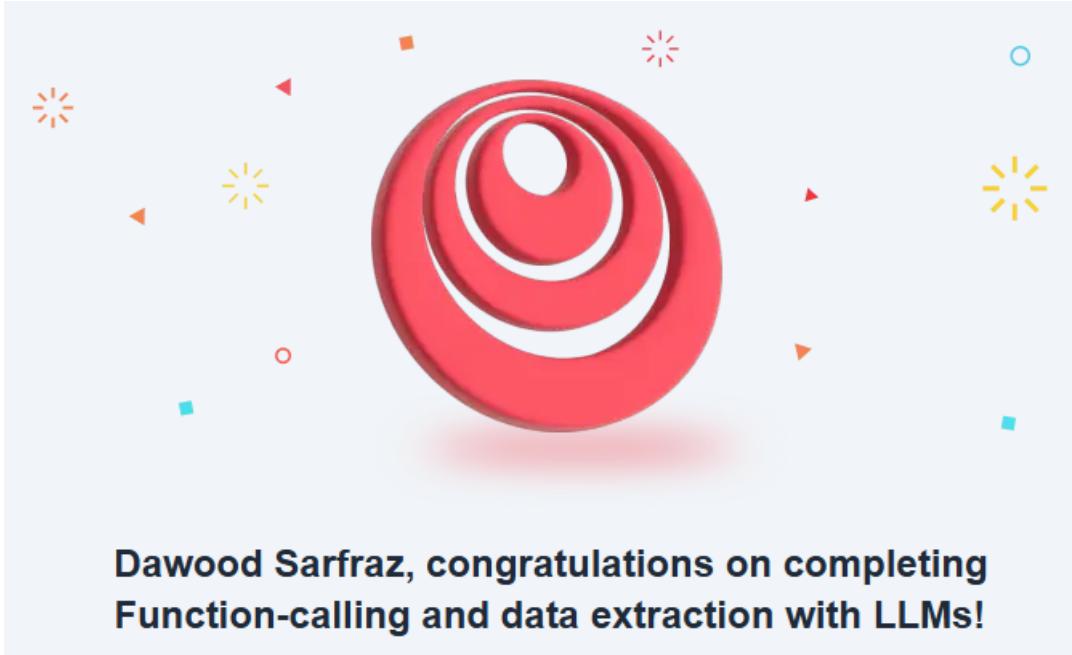


Figure 39: Function-calling and data extraction with LLMs

Functions, Tools and Agents with LangChain



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Functions, Tools and Agents with LangChain!**

Figure 40: Functions, Tools and Agents with LangChain

Knowledge Graphs for RAG



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Knowledge Graphs for RAG!**

Figure 41: Knowledge Graphs for RAG

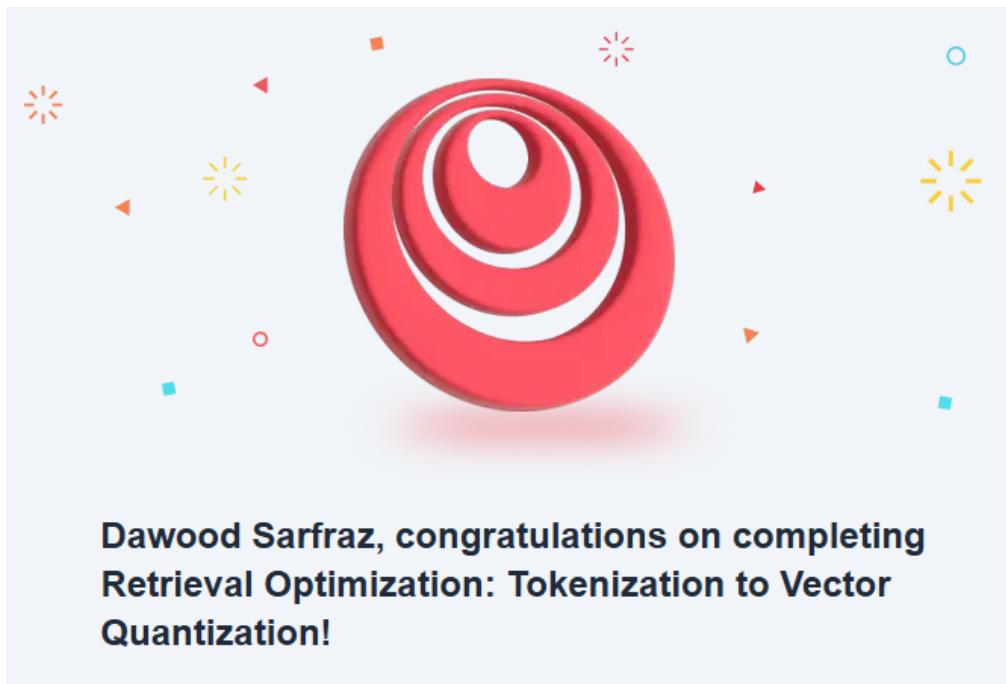
Large Language Models with Semantic Search



**Dawood Sarfraz, congratulations on completing
Large Language Models with Semantic Search!**

Figure 42: Large Language Models with Semantic Search

Retrieval Optimization Tokenization to Vector Quantization



**Dawood Sarfraz, congratulations on completing
Retrieval Optimization: Tokenization to Vector
Quantization!**

Figure 43: Retrieval Optimization Tokenization to Vector Quantization

Reasoning with o1

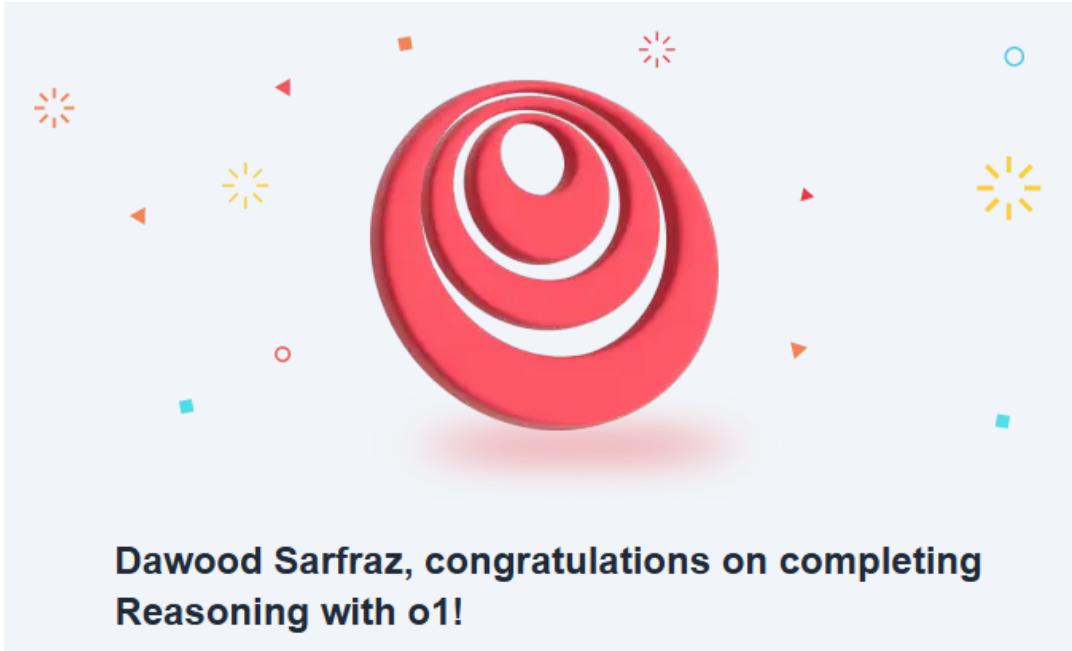


Figure 44: Reasoning with o1

Intro to Federated Learning



Figure 45: Intro to Federated Learning

Credit Card Fraud Detection



Figure 46: Credit Card Fraud Detection

Building Recommendation Systems



Figure 47: Building Recommendation Systems