Learn how to use NumPy to format data into arrays

Use pandas for data manipulation and cleaning

Learn classic machine learning theory principals

Use PyTorch deep learning library for image classification

Use PyTorch with recurrent neural networks (RNN) for sequence time series data

Create state of the art deep learning models to work with tabular data

## Introduction

**Generative AI Data Science**

Generative AI Data Science is focused on deep learning, NLP, and generative AI methods to help AI professionals learn how to fine-tune and train foundation models / large language

models for domain and industry specific tasks.

In this track, you will learn:

* Fine tuning models for domain and industry specific use cases
* How to work around risks/limitations to ensure better accuracy of responses
* Vector embeddings for applications such as semantic search
* How to determine the right model to use
* Difference between various LLM’s

**This track is for technical AI professionals who have experience with building and implementing machine learning models**.

## Introduction

In this training course learn Everything from No-Code, through to fine-tuning & embedding with code examples in multiple programming languages.

* Introduction and Prompt Engineering
* Writing code and calling the API
* Dall-E and Codex
* Fine-tuning
* Embedding
* Writing and managing Chatbots
* [Prompt Engineering for ChatGPT](https://coursera.org/learn/prompt-engineering)
* Build AI Apps with ChatGPT, Dall-E, and GPT-4
* [ChatGPT for Beginners: Using AI For Market Research](https://coursera.org/projects/chat-gpt-for-beginners-using-ai-for-market-research)
* [ChatGPT for Beginners: SciFi Writing with Dall-e](https://coursera.org/projects/chatgpt-dall-e-scifi-writing)
* [Building AI Powered Chatbots Without Programming](https://coursera.org/learn/building-ai-powered-chatbots)
* [Python Project for AI & Application Development](https://coursera.org/learn/python-project-for-ai-application-development)
* [Machine Learning Foundations for Product Managers](https://coursera.org/learn/machine-learning-foundations-for-product-managers)
* [Managing Machine Learning Projects](https://coursera.org/learn/managing-machine-learning-projects)
* [Neural Networks and Deep Learning](https://coursera.org/learn/neural-networks-deep-learning)
* [Natural Language Processing in TensorFlow](https://coursera.org/learn/natural-language-processing-tensorflow)
* [Natural Language Processing with Classification and Vector Spaces](https://coursera.org/learn/classification-vector-spaces-in-nlp)
* [Natural Language Processing with Attention Models](https://coursera.org/learn/attention-models-in-nlp)
* [Natural Language Processing with Probabilistic Models](https://coursera.org/learn/probabilistic-models-in-nlp)
* [Natural Language Processing with Sequence Models](https://coursera.org/learn/sequence-models-in-nlp)
* [TensorFlow: Advanced Techniques](https://coursera.org/specializations/tensorflow-advanced-techniques)
* [Neural Network from Scratch in TensorFlow](https://coursera.org/projects/neural-network-tensorflow)
* [Deep Learning with PyTorch: Generative Adversarial Network](https://coursera.org/projects/deep-learning-with-pytorch-generative-adversarial-network)
* [Text Generation with Markov Chains in Python](https://coursera.org/projects/text-generation-markov-chains-python)
* [Deploy an NLP Text Generator: Bart Simpson Chalkboard Gag](https://coursera.org/projects/deploy-bart-simpson-chalkboard-text-generator)
* [Generative AI Learning path’](https://www.cloudskillsboost.google/journeys/118)
* [Google Cloud Skills Boost](https://www.cloudskillsboost.google/journeys/118)