

15 Must Libraries for Gen AI

💡 **Transformers** Useful for training and fine-tuning machine learning models, especially those used in NLP tasks.

💡 **Gradio** Facilitates building user interfaces quickly to demo models.

LangChain Aids in chaining multiple models together for more complex operations.

💡 **LlamaIndex** is a data framework for connecting custom data sources to large language models, aiding in augmenting LLM applications with data. It helps in the integration of extensive external knowledge bases with large language models, thus enabling the development of custom NLP applications .

💡 **PyTorch** An open-source machine learning framework well-regarded in the community for its ease of use and flexibility.

💡 **Jina** A Python library notable for text-to-speech applications and interaction with language models3 .

💡 **JAX** is used for numerical computing, helping in initializing random weights and biases for each layer in neural networks, especially in the context of Generative AI . It is a machine learning library used for composing numerical programs and can compile them for CPU, GPU, and TPU, making it a suitable choice for machine learning programs

💡 **TensorFlow, Keras, and Numpy** libraries are foundational for many machine learning and generative AI tasks, providing a wide array of functionalities from basic to advanced.

💡 **Diffusers** Maintained by HuggingFace, Diffusers is a library that provides diffusion models for generating images and audio, offering multiple stable diffusion pipelines for these domains. It's designed as a modular toolbox to facilitate experimentation, research, or playing with text-to-image models.

💡 **Acme** is a research framework for reinforcement learning, providing a collection of building blocks to implement reinforcement learning algorithms efficiently.

💡 **Weights and Biases** This library provides tools for tracking experiments, visualizing results, and spotting regressions in the domain of generative AI. It's especially useful for accelerating deep learning and large language models (LLMs) securely, aiding in generative AI development.

💡 **Hugging Face Transformers** A library that provides APIs and tools for downloading and training state-of-the-art pretrained models, aiding in reducing compute costs and saving time. It offers open-source implementations of transformer models for text, image, and audio tasks, making it a significant contribution to AI and generative models.

💡 **Stable Baselines3** is a popular library for reinforcement learning in Python, providing highquality implementations of RL algorithms like Proximal Policy Optimization.

💡 **Sci-Kit Learn** An open-source machine learning framework useful for a variety of tasks including classification, regression, clustering, and more.