Glossary: Advanced Keras Functional API

Welcome! This alphabetized glossary contains many of the terms you'll find within this course. This comprehensive glossary also includes additional industry-recognized terms not used in course videos. These terms are important for you to recognize when working in the industry, participating in user groups, and participating in other certificate programs.

Term	Definition
Build	A method that creates the layer's weights, called once during the first invocation of the layer.
Call	A method that defines the forward pass logic of the layer.
Custom layer	A user-defined layer that allows customization of operations in a neural network, providing flexibility for specific tasks and experimentation.
Eager execution	A TensorFlow feature that executes operations immediately, making it more intuitive and useful for debugging and interactive programming.
Init	A method that initializes the layer's attributes.
Input layer	The first layer in a model that defines the input shape.
Keras	A high-level neural network API written in Python that can run on top of TensorFlow, Theano, and CNTK.
Keras Functional API	A powerful API for creating complex models with multiple inputs and outputs, shared layers, and non-sequential data flows.
Keras Sequential API	Creates models with layers in a linear stack.
ReLU	An activation function that outputs the input directly if positive; otherwise, it outputs zero. Commonly used in hidden layers.
Shared layer	Helpful when applying the same transformation to multiple inputs.
Softmax	An activation function suitable for classification tasks.
TensorFlow 2.x	An open-source platform for machine learning developed by Google, providing comprehensive tools to build and deploy machine learning models across various environments, from servers to edge devices.
TensorBoard	A visualization toolkit for TensorFlow that provides insights into the model training process, including metrics, graphs, and other useful data.
TensorFlow Extended (TFX)	An end-to-end platform for deploying production ML pipelines. TFX provides tools for model deployment, monitoring, and management, ensuring that machine learning models perform reliably in production environments.
TensorFlow Hub	A repository of reusable machine learning modules, which can be easily integrated into TensorFlow applications to accelerate development.
TensorFlow.js	A library for training and deploying machine learning models in JavaScript environments, such as web browsers and Node.js.
TensorFlow Lite	A lightweight framework for deploying machine learning models on mobile and embedded devices.

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