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| Tool | Overview | 3 Pros | 3 Cons | When to Use |
| Keras | highlevelApi for tensorflow. Modern deep learning | 1. Ease of use api 2. Flexible, can work with many frameworks 3. Large, active support | 1. Less flexible for more finetuned applications 2. Slower execution 3. Lack of low level operations | Best used for beginners and for prototyping in a high level environment |
| TensorFlow | It provides a flexible platform with tools and libraries for training, evaluating, and deploying Supports various applications and offers high-level and low-level programming options. | 1. Wide adoption 2. Very scalable 3. Easy to use | 1. Steep learning curve 2. Verbose and complex 3. Large memory usage | When scalability, production deployment, and a large scope is used |
| Torch | It emphasizes a dynamic computational graph, allowing for dynamic model construction and easy debugging in a user-friendly model | 1. Dynamic computational graph 2. Large research community and focus 3. Easy to use with python, very intuitive | 1. Not as extensive deployement tools 2. Graph execution can be slower 3. Not as much use in industy | When flexibility, dynamic graph computation, and research are emphasized |
| Theano | . It allows users to define, optimize, and evaluate mathematical expressions efficiently, especially those involving multi-dimensional arrays. Theano provides a low-level programming interface, allowing for fine-grained control over model architecture and optimization | 1. Efficient symbolic computation 2. Integration with CPU and GPU acceleration 3. High flexibility and control | 1. Active deployment is being reduced 2. Less user friendly 3. Not a big community | Need efficient symbolic computation,  High control,  High compatibility |
| A tool you find on your own | Caffe: It is known for its efficiency in training convolutional neural networks (CNNs) and its focus on computer vision tasks. Caffe provides a simple and expressive architecture for defining network architectures and supports popular CNN models like AlexNet, VGG, and ResNet. It also offers GPU acceleration and supports a variety of programming languages | 1. Specializes in CNNs 2. Highly modular 3. Increasing industry and community support | 1. Limited support for different layer types and architectures 2. Less flexible in non computer vision tasks 3. Not supported on windows | Computer vision, especially with CNN |