

10 ADVANTAGES OF TENSORFLOW 2.0



TensorFlow 2.0 is a Python-friendly, open-source library for numerical computation that makes Machine Learning faster and easier.

Leading the way for Machine Learning libraries, researchers, developers and world-leading companies such as eBay, Airbnb, PayPal, Lenovo and GE are turning to TensorFlow 2.0 to implement their state-of-the-art machine learning solutions.

Below are 10 reasons why they use TensorFlow 2.0 — and why you should too!



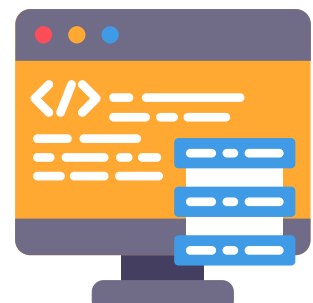
1. Backed By Google

Being backed and built by Google means that users get seamless performance, quick updates and frequent new releases of features. Google's long-term support can only signal that TensorFlow is here to stay for the long haul and will continue to grow and evolve at a fast and consistent pace along with the rate of state-of-the-art technologies.



2. Open Source and Free

With TensorFlow 2.0 being open source, you can take advantage of the state-of-the-art Machine Learning framework free of costs while having the ability to customize it to your specific needs and join a supportive community of fellow users.



3. Large and Vibrant Community

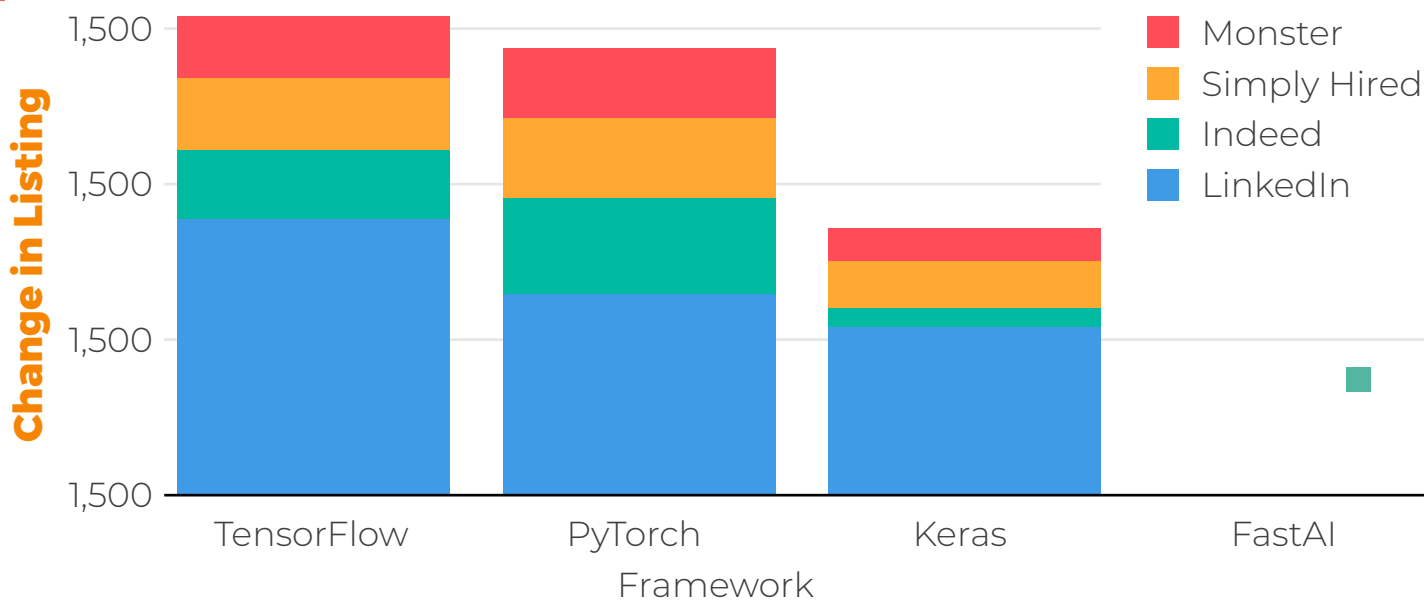
TensorFlow 2.0's community extends far and wide, making it easy to obtain knowledge faster and find the best solution for your particular problem.



4. In-Demand Skill & Growing in Popularity

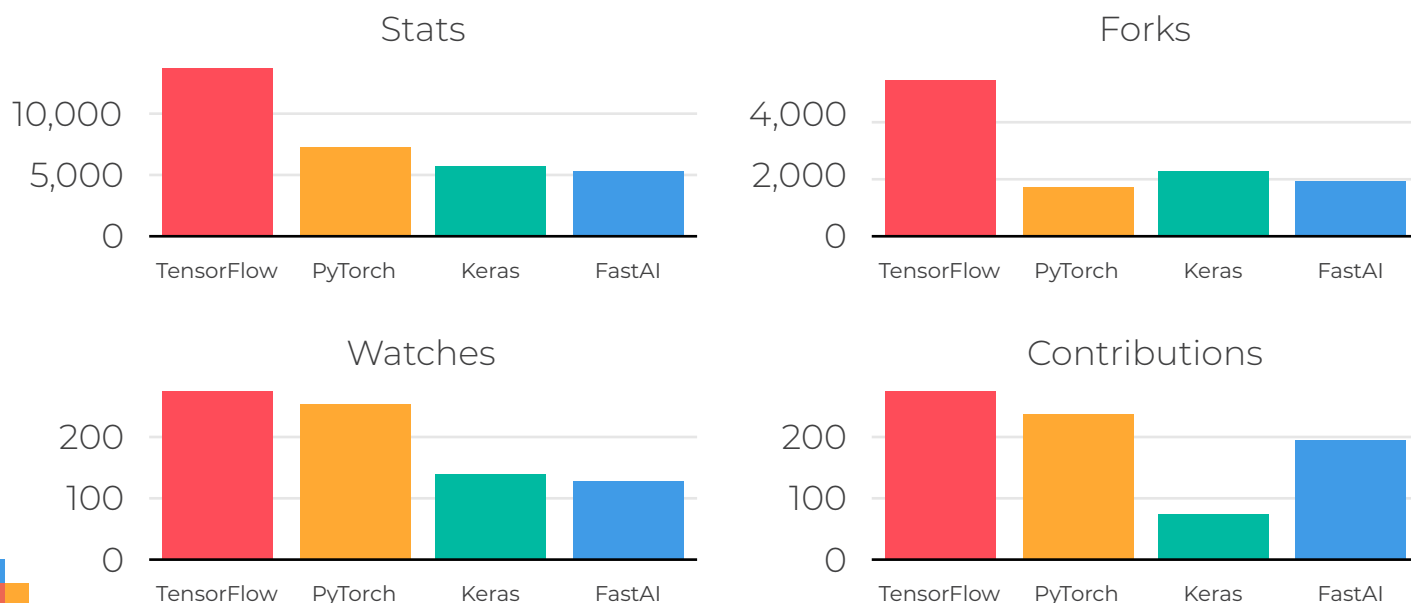
Among the top Machine Learning Libraries (TensorFlow 2.0, PyTorch, Keras and FastAI), TensorFlow 2.0 has the largest increase in job listings across the biggest online job boards, with employers showing approximately 50% higher demand compared to Keras and inching out PyTorch to lead the pack.

Online Job Listing Growth



Recent GitHub results are strong indicators of its popularity, with TensorFlow 2.0 earning the most activity across the code hosting platform and seeing the greatest number of topic followers on Quora.

New GitHub Activity



<https://towardsdatascience.com/which-deep-learning-framework-is-growing-fastest-3f77f14aa318>

5. Ease-of-Use & Feature-Rich

Google prioritized easy-of-use as an important feature of TensorFlow 2.0 and in the newly-released version, Google improved model-building with Keras, increased model deployment in production to various platforms and facilitated the ability to perform powerful experimentation for research. It also simplified the API by cleaning up deprecated APIs and lowering duplication.



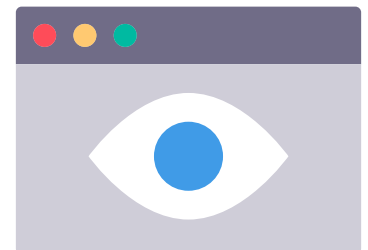
6. Compatibility Across Platforms

TensorFlow 2.0 provides GPU, CPU, desktop, server, web and mobile computing platform support, offering a direct path to production no matter your chosen platform.



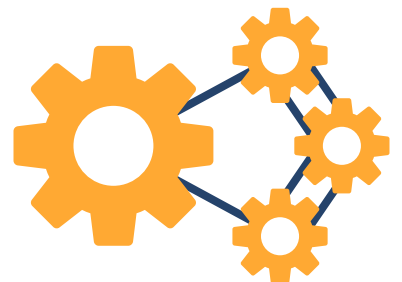
7. Visualization

When building and debugging new models, TensorFlow 2.0's computational graph visualization helps you understand, inspect and debug via TensorBoard, which produces a visual representation of the model.



8. Integrations

Integration of high-level libraries like Keras and Estimators, and several programming languages (Python, C#, Java, R, Go, Rust, Julia and more) make it really simple for a beginner to get started with neural network-based models.



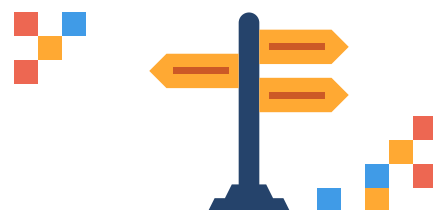
9. Research and Production

Taking your ideas from conception to code has never been easier. TensorFlow 2.0 supports faster research and production times by enabling users to share code directly and with greater reproducibility. TensorFlow 2.0 also allows you to train and serve models in live mode to real customers. There's no need to rewrite code, freeing up more time to apply your models to actual products and applications in less time.



10. Auto-Differentiation

TensorFlow 2.0's built-in automatic differentiation capabilities facilitate gradient-based machine learning algorithms.



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