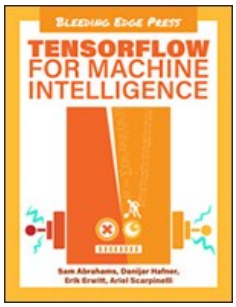

TensorFlow for Machine Intelligence: A Hands-On Introduction to Learning Algorithms

by Sam Abrahams, Danijar Hafner, Erik Erwitt and Ariel Scarpinelli

Chapter 9: Conclusion

Overview

You made it! Thank for you reading *TensorFlow for Machine Intelligence*. You should now have a firm understanding of the core mechanics and API for building machine learning models in TensorFlow. If you weren't already knowledgable about deep learning, we hope that you've gained more insight and comfort with some of the most common architectures in convolutional and recurrent neural networks. You've also seen how simple it can be to put a trained model into a production setting and start adding the power of TensorFlow to your own applications.

TensorFlow has the capabilities to change the way researchers and businesses approach machine learning. With the skills learned in this book, be confident in your ability to build, test, and implement existing models as well as your own newly designed experimental networks. Now that you are comfortable with the essentials, don't be afraid to play around with what's possible in TensorFlow. You now bring a new edge with you in any discussion about creating machine learning solutions.

Next steps and additional resources

Although we've covered much in this book, there are still subjects that simply couldn't fit within these pages. Because of this, we've included a few directions to help get you started diving deeper into TensorFlow.

Read the docs

To a developer who hasn't worked with TensorFlow before, the API documentation may be a little challenging to read due to specific terminology used in TensorFlow. However, now that you're chops are up to snuff, you'll find the API to be invaluable as you craft and code your programs. Keep it open in the background or a separate monitor and you won't regret it:

https://www.tensorflow.org/versions/master/api_docs/ index.html

Stay Updated

The absolute best way to keep up-to-date with the latest functionality and features of TensorFlow is the official TensorFlow Git repository on GitHub. By reading pull requests, issues, and release notes, you'll know ahead of time what will be included in upcoming releases, and you'll even get a sense of when new releases are planned.

https://github.com/tensorflow/tensorflow

Distributed TensorFlow

Although the basic concepts of running TensorFlow in a distributed setting are relatively simple, the details of setting up a cluster to efficiently train a TensorFlow model could be its own book. The first place you should look to get started with distributed TensorFlow is the official how-to on the tensorflow.org website:

https://www.tensorflow.org/versions/master/how_tos/distributed/ index.html

Note that we expect many new features to be released in the near future that will make distributed TensorFlow much simpler and more flexible- especially with regards to using cluster management software, such as Kubernetes.

Building New TensorFlow Functionality

If you want to get under the hood with TensorFlow and start learning how to create your own Operations, we highly recommend the official how-to on tensorflow.org:

https://www.tensorflow.org/versions/master/how_tos/adding_ an_op/index.html

The process of building an Operation from scratch is the best way to start getting acquainted with how the TensorFlow framework is designed. Why wait for a new feature when you could build it yourself!

Get involved with the community

The TensorFlow community is active and thriving. Now that you know the software, we highly encourage you to join the conversation and help make the community even better! In addition to the GitHub repository, the official mailing list and Stack Overflow questions provide two additional sources of community engagement.

The TensorFlow mailing list is designed for general discussion related to features, design thoughts, and the future of TensorFlow:

https://groups.google.com/a/tensorflow.org/d/forum/discuss

Note that the mailing list is **not** the place to ask for help on your own projects! For specific questions on debugging, best practices, the API, or anything specific, check out Stack Overflow to see if your question has already been answered- if not, ask it yourself!

http://stackoverflow.com/questions/tagged/tensorflow

Code from this book

Code examples from the text and additional materials can be found in this book's GitHub Repository:

https://github.com/backstopmedia/tensorflowbook

Thank you once again for reading!