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# 9 Ways to Get Help with Deep Learning in Keras

by **Jason Brownlee** on August 2, 2017 in **Deep Learning**



Keras is a Python deep learning library that can use the efficient Theano or TensorFlow symbolic math libraries as a backend.

Keras is so easy to use that you can develop your first [Multilayer Perceptron](#), [Convolutional Neural Network](#), or [LSTM Recurrent Neural Network](#) in minutes.

You may have technical questions when you get started using Keras. You may need a little help.

In this post, you will discover 9 places where you can ask questions and get help when developing deep learning models with Keras.

Let's dive in.

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# How to Best Use These Resources

Knowing where to get help is the first step, but you need to know how to get the most out of these resources.

Below are some tips that you can use:

- Boil your question down to the simplest form. E.g. not “*my model does not work*” or “*how does x work*”.
- Search for answers before asking questions.
- Provide the smallest possible working example to demonstrate your issue.

## 1. Keras Users Google Group

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**Keras-users** Shared publicly

60 of 2488 topics (99+ unread) ☆

[Join group](#)

G+1

About ▾

Welcome to the Keras users forum. Keras is a Deep Learning package built on the top of Theano, that focuses on enabling fast experimentation.

Documentation at: <http://keras.io/>

Code at: <https://github.com/fchollet/keras>

Feel free to ask questions in this forum about usage of the package or to share interesting work you have done with Keras.

**Merging and splitting layers (1)**

By Alexander Schindler - 1 post - 2 views

00:13

**Keras maximum absolute value layer (1)**

By daniel....@gmail.com - 1 post - 1 view

**Feature vector input for feature vector output [LSTM] (1)**

By Tarasha Khurana - 1 post - 4 views

**Two input of one layer (3)**

By d.zhan....@gmail.com - 3 posts - 10 views

**Neural network input shape error (1)**

By simonne....@gmail.com - 1 post - 2 views

**Merging time distributed tensor gives 'inbound node error' (2)**

By adity....@gmail.com - 2 posts - 4 views

**Keras on Android (11)**

By Tammy Yang - 11 posts - 1350 views

**Regarding running Multiple Model parallelly in GPU (1)**

By Amitha Hiriadaka - 1 post - 6 views

12 Jun

**Keras 2.0.4 and gpu (2)**

By harry....@gmail.com - 2 posts - 41 views

11 Jun

Keras Users Google Group

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Perhaps the most direct place to ask questions of the Keras community is the Keras Users group on [Google+.](#)


[Get Your Start in Machine Learning](#)


You do not need to get the emails; you can participate online, which I recommend.


- [Keras Users Google Group](#)


## 2. Keras Slack Channel

**dref360** 🇨🇦 6:15 AM  
Can be done, would require a custom Container for multiple models. and the train\_on\_batch function would need multiple batches. one for each model then the custom optimizer can get the gradient from all models and average it.

**dylan.randle** 6:19 AM  
Doesn't seem TOO bad (edited)

**dref360** 🇨🇦 6:25 AM  
guarantee that the params are all the same everywhere will be a problem. Since cudnn is  
I don;t know if the backprop is deterministic thought

**dylan.randle** 6:27 AM  
Curently I'm defining multiple copies of my model on different GPUs (edited)  
but I do the input slicing and output concatenation on CPU  
and my GPUs are not getting consistently utilized (they drop to ~10% a lot)  
like this:

**dylan.randle** 6:28 AM  
added this Python snippet ▾

```
1 with tf.device('/cpu:0'):
2     x = Input(model.input_shape[1:], name=model.input_names[0])
3
4     towers = []
5     for g in range(n_gpus):
```

+

Message #general

😊

Keras Slack Channel

✕

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Perhaps the best place for direct chatting about Keras and related issues is the Keras slack channel.

This has basically replaced IM and IIRC.

You must submit an application to join first.

- [Keras Slack Join Form](#)
- [Keras Slack Channel](#)

### 3. Keras on Gitter


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29


It's supposed to be an implementation of  
<https://www.cs.cmu.edu/~rsalakhu/papers/oneshot1.pdf>



K Kishore @kishorenayar Jun 08 02:06


How do I convert mode.h5 to tensorflow format. Please look into this link.

[fchollet/keras#6888](#)



tbhfeng @tbhfeng Jun 09 10:50

Hey all, I was wondering if anyone has any advice or insight on this issue im having. I am training a model using only 600 images, on a 300/300 split. i tried using the inception\_v3 model (transfer learning) with code modified from the keras tutorial, and my model always stablizes at accuracy: .50, binary\_accuracy .50. I also trained my own model and i saw the same issue. does anyone have any insight on why this is?









tbhfeng @tbhfeng Jun 09 11:09

Epoch 8/30  
 600/600 [=====] - 9s - loss: 7.9712 -  
 acc: 0.5000 - binary\_accuracy: 0.5000

**SIGN IN TO START TALKING**

Keras Gitter Group

 ahundt edited #6928
  ahundt edited #6928
  ahundt edited #6928
  ahundt edited #6928
  ahundt edited #6928
  ahundt edited #6928

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Another good place to chat about Keras is on the Keras Gitter.

This is just like slack and still has a good amount of people on it.

Dive in.

**Get Your Start in Machine Learning**

- Keras Gitter Group

## 4. Keras tag on StackOverflow

The screenshot shows the StackOverflow interface for the 'keras' tag. At the top, there are navigation links: Questions, Job Board, Documentation (BETA), Tags, and Users. A search bar contains '[keras]'. Below the navigation, the 'Tagged Questions' section is active, with filters for info, newest, featured (1), frequent, votes, active, and unanswered. A description of the Keras tag is provided: 'Keras is a minimalist, highly modular neural network library written in Python.' with links to 'learn more...', 'improve tag info', 'top users', and 'synonyms'. Three questions are listed:

- How do I install Keras and Theano in Anaconda Python c**  
38 votes, 4 answers, 64k views  
I am trying to work on neural networks in Python using the following K...  
np\_utils from keras.layers.core import Dense, Activation, Dropout from...  
Tags: python-2.7, python-3.x, anaconda, theano, keras
- Understanding Keras LSTMs**  
38 votes, 1 answer, 4k views  
I am trying to reconcile my understand of LSTMs and pointed out here...  
Understanding-LSTMs/ with the LSTM implemented in Keras. I am following the blog written hup...  
Tags: python, deep-learning, keras, lstm
- How to get reproducible results in keras**  
35 votes

An overlay advertisement titled 'Get Your Start in Machine Learning' is positioned on the right. It includes a close button (X), a description of the course, an email address input field, a 'START MY EMAIL COURSE' button, and the user's name 'Sachin\_ruk' with a profile picture and statistics (704 ● 9 ● 24).

Keras tag on StackOverflow

StackOverflow is a question-and-answer site dedicated to programming.

There are a ton of questions on or related to deep learning and Keras.

I would recommend searching and asking questions that use the “*keras*” tag.

- [Keras tag on StackOverflow](#)


## 5. Keras tag on CrossValidated

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 Cross Validated

QUESTIONS TAGS USER

Tagged Questions info newest frequent votes active unanswered

Open source high-level neural network library for Python. Is capable of using TensorFlow or Theano as backend.  
learn more... improve tag info top users synonyms

3  
votes

1  
answer

61 views

**Predicting the observations in a POMDP with a recursive model**  
I use neural networks for online sequence prediction. The performance of my model is nearly as good as I expected. Maybe someone can help me understand why.  
markov-process lstm sequence-analysis keras recursive-model

2  
votes

1  
answer


79 views

**Number of trainable parameters in Convolutional Neural Networks**  
I am using keras to implement a cnn model. ...  
neural-networks conv-neural-network convolution keras

1  
vote

1  
answer

**Neural Network cannot learn a simple function**  
I am trying to train a simple neural network for regression, where the underlying function is a quadratic. Training data is generated by this underlying function, and I am just trying to get a network ...

 user160143  
11 1

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Keras tag on CrossValidated

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CrossValidated is a question-and-answer site dedicated to machine learning.

There are still a ton of questions on and related to Keras, but they may have a more theoretical bend and less of a focus on code and programming.

Again, I recommend searching and asking questions that use the “*keras*” tag.

- [Keras tag on CrossValidated](#)

## 6. Keras tag on DataScience

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## Data Science beta

Questions Tags Use

## Tagged Questions

info newest frequent votes active unanswered

Keras is a minimalist, highly modular neural network library written in Python.

[learn more...](#) [improve tag info](#) [top users](#) [synonyms](#)

13

votes

1

answer

1k views

### The difference between `Dense` and `TimeDistributedDense`

I am still confused about the difference between Dense and TimeDistributedDense

machine-learning

neural-network

keras

13

votes

1

answer

5k views

### Choosing between TensorFlow or Theano as backend for Keras

Keras supports both TensorFlow and Theano as backend: what are the pros and cons of each other, besides the fact that currently not all operations are implemented with Theano

neural-network

deep-learning

theano

tensorflow

keras

10

votes

4

answers

### How to set class weights for imbalanced classes in Keras?

I know that there is a possibility in Keras with the `class_weights` parameter dictionary at fitting, but I couldn't find any example. Would somebody so kind to ...

classification

keras

weighted-data

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2,440 • 11 • 39

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The StackExchange network that backs StackOverflow and CrossValidated also has a site dedicated to DataScience.

It is still in the beta program, and is not an official member of the network yet. Nevertheless, there are a good number of Keras questions on the site.

Unlike the other two sites, the questions may have a more process orientation.

Again, I recommend searching and asking questions that use the “*keras*” tag.


- [Keras tag on DataScience Stack Exchange](#)

## 7. Keras Topic on Quora

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**Keras**

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### Feed

Answer written · Artificial Intelligence · Mar 25

#### Is it easy to train a Deep Neural Network model from scratch using Keras?

 Shriphani Palakodety, Do it for a living.  
Answered Mar 25

Yes.... (?)

[Keras Documentation](#)

97 Views · [View Timeline](#)

[Upvote](#) [Downvote](#) [Comment](#) [f](#) [t](#) [e](#) ...

---

Question followed · Deep Learning · Sat

#### Will Keras remain useful and relevant as tf.contrib.layers becomes more capable and easier to use?

3 Answers

[Answer](#) [Pass](#) [Follow](#) 8 [Downvote](#) ...

### About

Describe the **Keras** topic

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[Deep Neural Networks](#)  
197 Followers

Keras topic on Quora

Quora is a large general purpose question-and-answer site.

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Although it is general purpose, there are a lot of questions on technical topics, including Keras and deep learning.

The focus of the questions are more text-based and expository. You may get more detail on the techniques rather than implementation detail.

I would recommend searching and asking questions in the “Keras” topic.

- [Keras topic on Quora](#)

## 8. Keras Github Issues

The screenshot shows the GitHub repository for fchollet/keras. The 'Issues' tab is selected, showing 2,764 open issues. A list of issues is displayed, including 'Does Keras support using multiple GPUs?', 'Incorporating Word Vectors rather than using an Embedding class', 'Contrib Repo', 'Switch to a modular backend for Theano and TensorFlow support', and 'When and How to use TimeDistributedDense'. A promotional overlay titled 'Get Your Start in Machine Learning' is present on the right side of the page.

**fchollet / keras** Watch 1,118 Star 16,510 Fork 5,855

Code Issues 2,764 Pull requests 29 Projects 1 Wiki Insights

Filters is:issue is:open sort:comments-desc Labels Milestones

Clear current search query, filters, and sorts

2,764 Open ✓ 2,285 Closed Author Labels Project

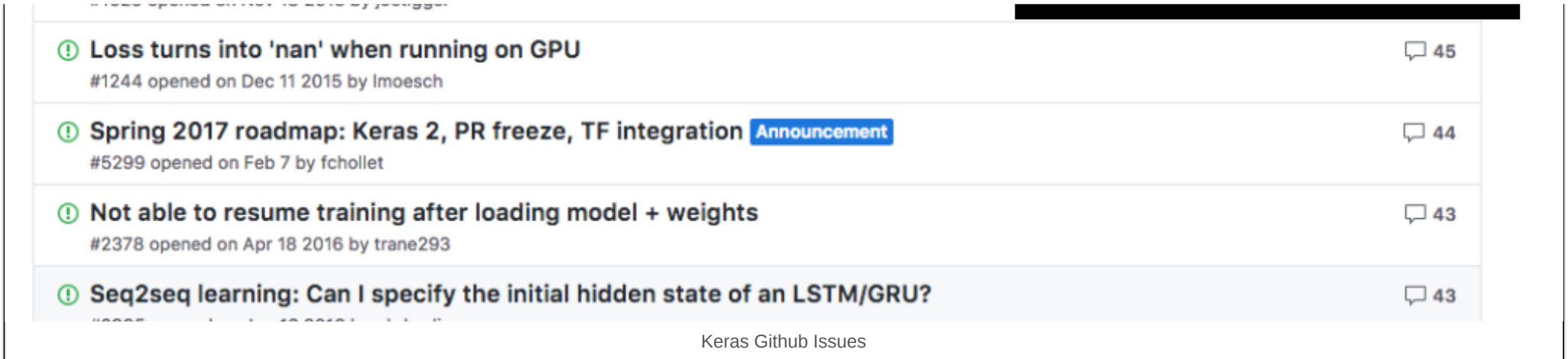
- Does Keras support using multiple GPUs?  
#2436 opened on Apr 21 2016 by henry0312
- Incorporating Word Vectors rather than using an Embedding class  
#853 opened on Oct 19 2015 by vindiesel
- Contrib Repo  
#4944 opened on Jan 7 by patyork 72
- Switch to a modular backend for Theano and TensorFlow support stale  
#1014 opened on Nov 15 2015 by fchollet 67
- When and How to use TimeDistributedDense  
#1029 opened on Nov 18 2015 by ioetiaaer

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The screenshot shows a list of four GitHub issues for the Keras project. Each issue is represented by a row with a green circular icon containing an exclamation mark, the issue title, the issue number and opening date/author, and a comment count with a speech bubble icon.

Issue Title	Issue Number	Opened On	By	Comments
Loss turns into 'nan' when running on GPU	#1244	Dec 11 2015	Imoesch	45
Spring 2017 roadmap: Keras 2, PR freeze, TF integration <span>Announcement</span>	#5299	Feb 7	fchollet	44
Not able to resume training after loading model + weights	#2378	Apr 18 2016	trane293	43
Seq2seq learning: Can I specify the initial hidden state of an LSTM/GRU?	#2025	Jan 10 2016	trane293	43

Keras Github Issues

Keras is an open source project that is hosted on GitHub.

GitHub provides a basic issue management system and the Keras project has a lot of issues reported. While most are technical issues with the code, there is a surprising amount of good discussion on Keras in the issue

I would recommend searching through the Keras issues but only posting an issue if you have found a problem (see the [guidelines](#)).

- [Keras Github Issues](#)


## 9. Keras on Twitter

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**7,552**

FOLLOWING  
**525**

FOLLOWERS  
**27.3K**


**Following**

**François Chollet** ✓  
@fchollet

Deep learning @google. Author of Keras, neural networks library. Founder of Wyls learning platform for artists.

Mountain View, CA • [keras.io](https://keras.io)


Followed by [Ian Goodfellow](#) and 35 others



**Ermia Bivatan** @ErmiaBivatan · Jun 11

I've just implemented both [#selu](#) activation function & [#SELU](#) layer in [#K](#) Will be design [#SELU\\_dropout](#) tomorrow. [#DeepLearning](#)

2 3 14




**Ermia Bivatan** @ErmiaBivatan · Jun 11

After many trials,I think there is no advantage of using [#selu](#) instead of <#> result is even worse in many cases.

[#deeplearning](#) [#keras](#)

2 1 1

David Smith follows



**Giora Simchoni** @GioraSimchoni · Jun 12

Using [#deeplearning](#) to distinguish between [@SouthPark](#) and [@TheSimpsons](#)

Keras hash tag on Twitter

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You may get fast answers to one-off Keras questions on twitter.

I would recommend using the Twitter search and searching for “*keras*” first.

I would also recommend searching and posting using the “*keras*” hashtag.

- [Keras hashtag on Twitter](#)

You may also get insight by following the creator and lead developer behind Keras, [François Chollet](#).

## Other Keras Destinations

Below are other Keras sites where you may find help.

- [Keras Official Blog](#)
- [Keras API Documentation](#)
- [Keras Source Code Project](#)

## Summary

In this post, you discovered 9 different places around the web where you can get answers and ask q

Have you used any of these resources?

How did you do?

Are there are places where you like to get help with Keras?

Please let me know in the comments below.

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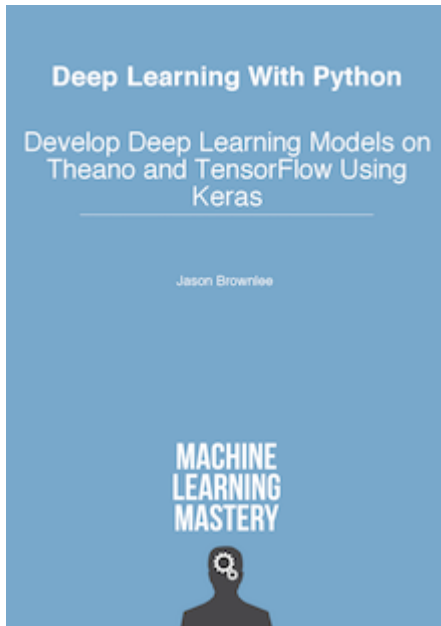
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### About Jason Brownlee

Dr. Jason Brownlee is a husband, proud father, academic researcher, author, professional developer, and entrepreneur. He is passionate about helping developers get started and get good at applied machine learning. [Learn more.](#)

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[◀ How to Get Good Results Fast with Deep Learning for Time Series Forecasting](#)

[How to Plan and Run Machine Learning Experiments Systematically ▶](#)

[Get Your Start in Machine Learning](#)

## 2 Responses to 9 Ways to Get Help with Deep Learning in Keras



**Gerrit Govaerts** August 2, 2017 at 5:11 pm #

REPLY ↩

You forgot François Chollet's own Keras Blog .He has a very interesting article on it about how he sees AI evolving into AGI :  
<https://blog.keras.io/the-future-of-deep-learning.html>



**Jason Brownlee** August 3, 2017 at 6:46 am #

Thanks Gerrit.

### Leave a Reply

Name (required)

Email (will not be published) (required)

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My goal is to make practitioners like YOU awesome at applied machine learning.

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Want end-to-end projects?

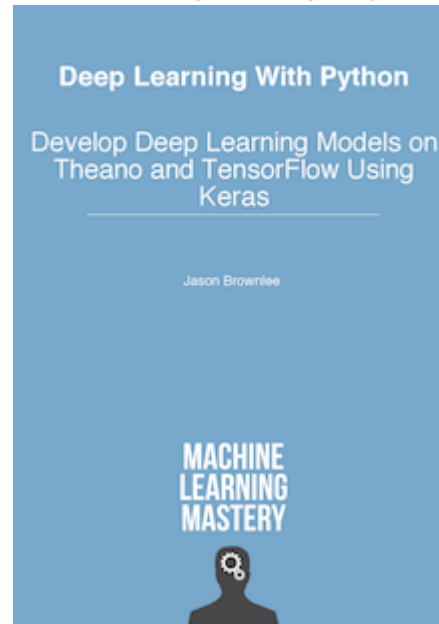
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Get Started With Deep Learning in Python Today!



## POPULAR

**Time Series Prediction with LSTM Recurrent Neural Networks in Python with Keras**

JULY 21, 2016

**Your First Machine Learning Project in Python Step-By-Step**

JUNE 10, 2016

**Develop Your First Neural Network in Python With Keras Step-By-Step**

MAY 24, 2016

**Sequence Classification with LSTM Recurrent Neural Networks in Python with Keras**

JULY 26, 2016

**How to Setup a Python Environment for Machine Learning and Deep Learning with Anaconda**

MARCH 13, 2017

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### Time Series Forecasting with the Long Short-Term Memory Network in Python

APRIL 7, 2017



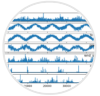
### Multi-Class Classification Tutorial with the Keras Deep Learning Library

JUNE 2, 2016



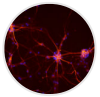
### Regression Tutorial with the Keras Deep Learning Library in Python

JUNE 9, 2016



### Multivariate Time Series Forecasting with LSTMs in Keras

AUGUST 14, 2017



### How to Implement the Backpropagation Algorithm From Scratch In Python

NOVEMBER 7, 2016

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