

# **TensorFlow Certificate**

#### **Candidate Handbook**

Please review this handbook in its entirety prior to registering and taking the exam.

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## Contact

Email: tensorflow-certificate-team@google.com

Web: www.tensorflow.org/certificate

### Exam details

#### Criteria

The exam tests students in their ability to solve problems by building models using TensorFlow.

During the exam, students will complete 5 models - 1 in each of the following categories. The maximum overall score is 100 points, and students must score 90 or greater to pass.

- Category 1: Basic / Simple model
- Category 2: Model from learning dataset
- Category 3: Convolutional Neural Network with real-world image dataset
- Category 4: NLP Text Classification with real-world text dataset
- Category 5: Sequence Model with real-world numeric dataset

In order to successfully take the exam, you should be comfortable with the following:

- Using the most important and foundational principles of Machine Learning and Deep Learning
- Building machine learning models in TensorFlow
- Building image recognition algorithms with deep neural networks and convolutional neural networks. You should be comfortable working with real-world images in different shapes and sizes, visualize the journey of an image through convolutions to understand how a computer "sees" information, plot loss and accuracy, and explore strategies to prevent overfitting, including augmentation and dropouts.
- Using image recognition, object detection, text recognition (ex: processing and representing text through tokenization so that it's recognizable by a neural network, including RNNs, GRUs and LSTMs.)
- Applying neural networks to solve natural language processing problems using TensorFlow.

#### Exam environment

• You can take the exam from any computer that supports the <u>PyCharm IDE</u> requirements, anywhere there is internet, any time. There is no need to go to a test center.

- This exam is an online, performance-based test that requires implementing TensorFlow models using TensorFlow within a PyCharm environment.
- The exam is expected to take up to 5 hours.
- In order to take the exam you will install the TensorFlow Exam plugin using the PyCharm IDE. We recommend you install the PyCharm IDE and become familiar with using it prior to taking the exam. **Here** are the system requirements for the PyCharm IDE.

#### Exam time limit

You have 5 hours to complete the exam, and if you finish early, you can submit the exam. When the 5 hours has elapsed, the exam will auto-submit. Having the exam auto-submit will not in itself cause you to fail the exam.

#### Exam URL

Once you have read this document in its entirety, you can visit the exam URL here.

### Candidate identification and authentication

You are required to provide a non-expired Primary ID that contains your photograph, signature and full name (see acceptable forms of ID in the table below).

If your full name on their Primary ID contains non-latin characters, then you must ALSO provide a non-expired Secondary ID containing your full name in Latin Characters and signature, OR a notarized English translation of your Primary ID along with the non-latin character Primary ID.

Primary ID (non-expired and including photograph and signature)	Secondary ID (non-expired and including signature with Candidate name in Latin characters)
Passport	Health Insurance Card

Government-issued driver's license/permit Government-Issued local language ID (plastic card with photo and signature) U.S. Social Security Card

National Identity card

State or province-issued identity card

Exams may be administered to citizens of a sanctioned country listed below PROVIDED the citizens are tested OUTSIDE the sanctioned country and their exam registration and current ID show an address OUTSIDE the sanctioned country.

- Cuba
- Iran
- Syria
- Sudan
- North Korea
- Crimea Region of Ukraine

## Resources allowed during exam

During the exam, you may only use the browser to access TensorFlow documentation.

## Eligibility

You must test as an individual. The certificate is only available for natural persons, not corporations or other legal entities.

## Registration

You must be registered to be eligible to take the exam. To register for the exam, go <u>here</u>. To complete the checkout, you will be prompted to enter payment information, and read and accept

the Terms and Conditions for Exam Registration. The exam may be taken at your convenience. You are not required to take the exam at the time of registration and payment.

## Fees and payment

The exam cost is \$100 USD, which includes one exam attempt. Please note that we are offering a limited number of stipends to cover the cost of taking the TensorFlow certificate to help ensure this opportunity is accessible for everyone. More details can be found on <u>our website</u>.

## Taking the exam

After you download the plugin and sign in, your exam will be provided to you. You will have a maximum of five hours to complete the exam. If you have not completed the exam after five hours it will be auto-submitted for you.

### Results

After you submit your exam, it will be graded and scores will be posted to the <u>Candidate Portal</u>. If you pass the exam the Certificate will be mailed to the registered email address. Please contact us at <u>tensorflow-certificate-team@google.com</u> if you passed the exam, but did not receive the Certificate within 10 business days or if you would like to opt out of receiving your certificate.

## Retaking the exam

Please note that you must register and pay for each exam attempt. Our exam retake policy is as follows:

- If you don't pass on your first attempt, you must wait 14 days before you take the exam again.
- If you don't pass on your second attempt, you must wait two months before you take the exam again.

• If after three attempts you still have not passed the exam, you must wait one year before you take the exam again.

## Length of validity of the certificate

Your certification expires 36 months from the date when you receive your digital badge. To renew your certification at that time, you need to complete the registration and certificate process again.

### Statement of non-discrimination

TensorFlow endorses the principles of equal opportunity. Eligibility criteria for the TensorFlow certificate is applied equally to all individuals regardless of age, race, religion, gender, national origin, veteran status, or disability.