

Stanford | ONLINE

04/11/2020

Sanyang Liu

has successfully completed

Machine Learning

an online non-credit course authorized by Stanford University and offered through
Coursera



Associate Professor Andrew Ng
Computer Science Department
Stanford University

SOME ONLINE COURSES MAY DRAW ON MATERIAL FROM COURSES TAUGHT ON-CAMPUS BUT THEY ARE NOT EQUIVALENT TO ON-CAMPUS COURSES. THIS STATEMENT DOES NOT AFFIRM THAT THIS PARTICIPANT WAS ENROLLED AS A STUDENT AT STANFORD UNIVERSITY IN ANY WAY. IT DOES NOT CONFER A STANFORD UNIVERSITY GRADE, COURSE CREDIT OR DEGREE, AND IT DOES NOT VERIFY THE IDENTITY OF THE PARTICIPANT.

COURSE
CERTIFICATE



Verify at coursera.org/verify/RB46KMMG8QKM

Coursera has confirmed the identity of this individual and
their participation in the course.

Stanford | ONLINE

May 11, 2020

SANYANG LIU

has successfully completed

Introduction to Mathematical Thinking

an online non-credit course authorized by Stanford University and offered through
Coursera



Keith Devlin, Ph.D., D.Sc.
Stanford University

COURSE
CERTIFICATE



Verify at:
coursera.org/verify/4MHFZ5CCEAAC

Coursera has confirmed the identity of this individual and their
participation in the course.

Certificate of Participation

FIRST® Tech Challenge World Championship 2018-2019

FIRST® proudly presents this certificate to recognize the student participant

Sanyang Liu

from *FIRST®* Tech Challenge Team

16093- Supernova BNDS



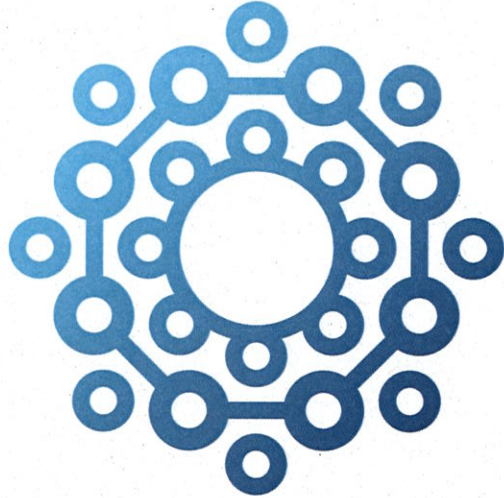
Ken Johnson
Director of *FIRST®* Tech Challenge



Don Bossi
FIRST® President



*To transform our culture by creating a world where science and technology are celebrated
and where young people dream of becoming science and technology leaders.*



FIRST GLOBAL CHALLENGE
دبي DUBAI
2019

CERTIFICATE OF EXCELLENCE

PRESENTED TO

Sanyang Liu

Representing Team People's Rep. of China

FOR PARTICIPATING IN
THE 2019 *FIRST* GLOBAL CHALLENGE
DUBAI, UNITED ARAB EMIRATES

24 – 27 OCTOBER 2019

Dean Kamen

Founder, International *FIRST* Committee Association





5 Courses

Neural Networks and Deep Learning

Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization

Structuring Machine Learning Projects

Convolutional Neural Networks

Sequence Models



Aug 16, 2022

SANYANG LIU

has successfully completed the online, non-credit Specialization

Deep Learning

Congratulations! You have completed all 5 courses of the Deep Learning Specialization. In this Specialization, you built neural network architectures such as Convolutional Neural Networks, Recurrent Neural Networks, LSTMs, Transformers, and learned how to make them better with strategies such as Dropout, BatchNorm, and Xavier/He initialization. You mastered these theoretical concepts, learned their industry applications using Python and TensorFlow, and tackled real-world cases such as speech recognition, music synthesis, chatbots, machine translation, natural language processing, and more. You are now familiar with the capabilities and challenges of deep learning. You are ready to take the definitive step in the world of AI and participate in the development of leading-edge technology.

Andrew Ng,
Founder,
DeepLearning.AI

Kian Katanforoosh
Co-founder, Workera

Younes Bensouda
Mourri
Instructor of AI,
Stanford University

The online specialization named in this certificate may draw on material from courses taught on-campus, but the included courses are not equivalent to on-campus courses. Participation in this online specialization does not constitute enrollment at this university. This certificate does not confer a University grade, course credit or degree, and it does not verify the identity of the learner.

Verify this certificate at:
<https://coursera.org/verify/specialization/68XX74DHWZUD>



Course Completion Certificate

Sanyang Liu

has successfully completed **100%** of the self-paced training course

MATLAB Onramp


DIRECTOR, TRAINING SERVICES

19 October 2023