



4 Courses

Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning

Convolutional Neural Networks in TensorFlow

Natural Language Processing in TensorFlow

Sequences, Time Series and Prediction



08/08/2020

**Lovepreet Singh**

has successfully completed the online, non-credit Professional Certificate

# DeepLearning.AI TensorFlow Developer

Congratulations! You have completed all 4 courses of the DeepLearning.AI TensorFlow Developer Professional Certificate program. As part of this Professional Certificate program, you have learned: how to build and train neural networks using TensorFlow, how to improve network performance using convolutions as you train it to identify real-world images, how to teach machines to understand, analyze, and respond to human speech with natural language processing systems, and more! These, and other TensorFlow concepts, are going to be at the forefront of the coming transformation to an AI-powered future.

Laurence Moroney is an  
AI Advocate at Google  
Research

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4 Courses

**Natural Language  
Processing with  
Classification and Vector  
Spaces**

**Natural Language  
Processing with Probabilistic  
Models**

**Natural Language  
Processing with Sequence  
Models**

**Natural Language  
Processing with Attention  
Models**



Nov 30, 2020

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has successfully completed the online, non-credit Specialization

# Natural Language Processing

Congratulations! You have completed all four courses of Natural Language Processing - a deeplearning.ai Specialization. As part of this Specialization, you have learned the classical machine learning skills and the state-of-the-art deep learning techniques needed to build NLP systems. You are now equipped to design applications that perform question-answering and sentiment analysis, create tools to translate languages and summarize text, and build chatbots! These, and other NLP applications, are going to be at the forefront of the coming transformation to an AI-powered future.

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*Younes Bensouda Mourri Łukasz Kaiser*

Younes Bensouda  
Mourri  
Instructor of AI at  
Stanford University

Łukasz Kaiser  
Staff Research Scientist  
at Google and Chargé  
de Recherche at CNRS

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3 Courses

AI for Medical Diagnosis  
AI for Medical Prognosis  
AI For Medical Treatment



21.09.2020

**Lovepreet Singh**

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## AI for Medicine

In this Specialization, you gained practical experience applying machine learning to concrete problems in medicine. You learned how to diagnose chest x-rays and brain scans, evaluate your models, handle missing data, and estimate the effect of treatments. Now you can help transform the practice of medicine worldwide. You can go on to pursue a career in the medical industry as a data scientist, machine learning engineer, innovation officer, or business analyst!

*Pranav Rajpurkar*

Pranav Rajpurkar, PhD  
Candidate at Stanford  
University

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5 Courses

Introduction to Data Science in Python

Applied Plotting, Charting & Data Representation in Python

Applied Machine Learning in Python

Applied Text Mining in Python

Applied Social Network Analysis in Python



08/15/2020

**Lovepreet Singh**

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# Applied Data Science with Python

The 5 courses in this University of Michigan specialization introduce learners to data science through the python programming language. This skills-based specialization is intended for learners who have a basic python or programming background, and want to apply statistical, machine learning, information visualization, and text analysis techniques to gain new insight into their data. In the final course, students will work on real-world data analysis projects, building a portfolio which showcases their work while at the same time helping real clients gain a better understanding of their data.

Christopher Brooks  
Research Assistant  
Professor  
School of Information

Kevyn Collins-Thompson  
Associate Professor  
School of Information

Daniel Romero, Ph.D.  
Assistant Professor  
School of Information  
University of Michigan

V. G. Vinod Vydiswaran  
Assistant Professor  
School of Information

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6 Courses

Crash Course on Python

Using Python to Interact with the  
Operating System

Introduction to Git and GitHub

Troubleshooting and Debugging  
Techniques

Configuration Management and  
the Cloud

Automating Real-World Tasks  
with Python



28.09.2020

**Lovepreet Singh**

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Certificate

# Google IT Automation with Python

This six-course certificate, developed by Google, is designed to provide IT professionals with in-demand skills -- including Python, Git, and IT automation -- that can help them advance their careers. The hands-on curriculum is designed to teach learners how to write code in Python, with a special focus on how this applies to automating tasks in the world of IT support and systems administration. Those who received this certificate passed all graded assessments with a score of 80% or above. They should have a strong foundation in how to use Git and GitHub, troubleshoot and debug complex problems, and apply automation at scale by using configuration management and the Cloud in order to prepare them for more advanced IT Support Specialist or Junior Systems Administrator positions.

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*Google*

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5 Courses

Google Cloud Platform  
Fundamentals: Core  
Infrastructure

Essential Google Cloud  
Infrastructure: Foundation

Essential Google Cloud  
Infrastructure: Core Services

Elastic Google Cloud  
Infrastructure: Scaling and  
Automation

Reliable Google Cloud  
Infrastructure: Design and  
Process



08/24/2020

**Lovepreet Singh**

has successfully completed the online, non-credit Specialization

# Architecting with Google Compute Engine

In this five-course accelerated specialization, learners explored and deployed solution elements, including infrastructure components such as networks, systems and applications services using Google Cloud Platform, with a focus on Compute Engine.

*Google Cloud Training*

Google Cloud Training

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4 Courses

Exploring and Preparing  
your Data with BigQuery

Creating New BigQuery  
Datasets and Visualizing  
Insights

Achieving Advanced Insights  
with BigQuery

Applying Machine Learning  
to your Data with GCP



Sep 11, 2020

**Lovepreet Singh**

has successfully completed the online, non-credit Specialization

# From Data to Insights with Google Cloud Platform

This four-course accelerated online specialization teaches course participants how to derive insights through data analysis and visualization using the Google Cloud Platform. The courses feature interactive scenarios and hands-on labs where participants explore, mine, load, visualize, and extract insights from diverse Google BigQuery datasets. The courses cover data loading, querying, schema modeling, optimizing performance, query pricing, and data visualization.

*Google Cloud Training*

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[coursera.org/verify/specialization/6ZBMAJFCF4M3](https://coursera.org/verify/specialization/6ZBMAJFCF4M3)



5 Courses

The Data Scientist's Toolbox  
R Programming  
Getting and Cleaning Data  
Exploratory Data Analysis  
Reproducible Research



08/16/2020

**Lovepreet Singh**

has successfully completed the online, non-credit Specialization

# Data Science: Foundations using R

The Data Science Specialization covers foundational concepts and tools for the data science pipeline. Successful participants learn how to use the tools of the trade, think analytically about complex problems, manage large data sets, create visualizations, and publish reproducible analyses. This certificate does not confer academic credit toward a degree or official status at the Johns Hopkins University.

Jeff Leek, PhD; Roger  
Peng, PhD; Brian Caffo,  
PhD  
Department of  
Biostatistics  
Johns Hopkins  
Bloomberg School of  
Public Health

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[coursera.org/verify/specialization/FLDKYV2R4LXE](https://coursera.org/verify/specialization/FLDKYV2R4LXE)





4 Courses

**AWS Fundamentals: Going  
Cloud-Native**

**AWS Fundamentals:  
Addressing Security Risk**

**AWS Fundamentals:  
Migrating to the Cloud**

**AWS Fundamentals: Building  
Serverless Applications**



Sep 12, 2020

**Lovepreet Singh**

has successfully completed the online, non-credit Specialization

## AWS Fundamentals

In this Specialization, learners gained proficiency in essential concepts, services, and use cases within the Amazon Web Services (AWS) cloud ecosystem, including core AWS services and key AWS security concepts. The Specialization also covered fundamental strategies for planning and migrating existing workloads to AWS and how to build and deploy serverless applications with AWS. Learners are given opportunities to solidify their understanding by engaging in various hands-on labs and exercises throughout the Specialization.

AWS Fundamentals

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5 Courses

**Google Cloud Platform Big Data and Machine Learning Fundamentals**

**Modernizing Data Lakes and Data Warehouses with GCP**

**Building Batch Data Pipelines on GCP**

**Building Resilient Streaming Analytics Systems on GCP**

**Smart Analytics, Machine Learning, and AI on GCP**

Google Cloud

Nov 7, 2020

**Lovepreet Singh**

has successfully completed the online, non-credit Specialization

# Data Engineering, Big Data, and Machine Learning on GCP

This five-course accelerated specialization is designed for data professionals who are responsible for designing, building, analyzing, and optimizing big data solutions. Through a combination of video lectures, quizzes, and hands-on labs, learners carried out serverless data analysis and productionize machine learning models. This specialization is designed to give learners a robust hands-on experience and is primarily lab-focused.

*Google Cloud Training*

Google Cloud Training

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07/16/2020

**Lovepreet Singh**

has successfully completed

**Convolutional Neural Networks**

an online non-credit course authorized by deeplearning.ai and offered through  
Coursera

A handwritten signature in blue ink, reading "Andrew Ng".

Adjunct Professor Andrew Ng  
Computer Science

**COURSE  
CERTIFICATE**



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their participation in the course.





08/01/2020

**Lovepreet Singh**

has successfully completed

**Sequence Models**

an online non-credit course authorized by deeplearning.ai and offered through  
Coursera

A handwritten signature in blue ink, reading "Andrew Ng".

Adjunct Professor Andrew Ng  
Computer Science

**COURSE  
CERTIFICATE**



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Oct 28, 2020

# Lovepreet Singh

has successfully completed

## How Google does Machine Learning

an online non-credit course authorized by Google Cloud and offered through Coursera

*Google Cloud Training*

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COURSE  
CERTIFICATE



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Nov 7, 2020

# Lovepreet Singh

has successfully completed

## Launching into Machine Learning

an online non-credit course authorized by Google Cloud and offered through Coursera

*Google Cloud Training*

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COURSE  
CERTIFICATE



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# UC DAVIS

07/23/2020

## Lovepreet Singh

has successfully completed

### SQL for Data Science

an online non-credit course authorized by University of California, Davis and offered through Coursera



Sadie St. Lawrence  
AI Strategy Consultant for Accenture Applied Intelligence  
Founder of Women in Data (WID)  
Instructor, University of California, Davis Extension

## COURSE CERTIFICATE



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