

Verified Certificate

This is to certify that

QiFeng Liang

successfully completed and received a passing grade in

**DS0720EN: Data Science and Machine Learning
Capstone Project**

a course of study offered by IBM, an online learning initiative of IBM.



A handwritten signature in black ink, appearing to read "Sourav Mazumder".

Sourav Mazumder

Data Scientist

IBM Developer Skills Network

A handwritten signature in black ink, appearing to read "Alex Akison".

Alex Akison

Ph.D., Data Scientist

IBM



Verified Certificate
Issued June 9, 2021

Valid Certificate ID
7113059efdb44d5691f5590fc846cbda

Verified Certificate

This is to certify that

QiFeng Liang

successfully completed and received a passing grade in

DV0101EN: Visualizing Data with Python

a course of study offered by IBM, an online learning initiative of IBM.



A handwritten signature in black ink, appearing to read "Alex Akison".

Alex Akison

Ph.D. Data Scientist

IBM

A handwritten signature in black ink, appearing to read "Joseph Sancartangelo".

Joseph Sancartangelo

Ph.D., Data Scientist

IBM

A handwritten signature in black ink, appearing to read "Saishruthi Swaminathan".

Saishruthi Swaminathan

Data Scientist and Developer Advocate

IBM



Verified Certificate
Issued May 15, 2021

Valid Certificate ID
137eb26f4b6e41aab49540268b412355

Verified Certificate

This is to certify that

QiFeng Liang

successfully completed and received a passing grade in

DA0101EN: Analyzing Data with Python

a course of study offered by IBM, an online learning initiative of IBM.



A handwritten signature in black ink, reading "Joseph Santarcangelo".

Joseph Santarcangelo

Data Scientist

IBM



Verified Certificate
Issued May 1, 2021

Valid Certificate ID
a918ce95f8284479b98ba29e1457f3ef

Verified Certificate

This is to certify that

QiFeng Liang

successfully completed and received a passing grade in

py4e102x: Python Data Structures

a course of study offered by MichiganX, an online learning initiative of the University of Michigan.



A handwritten signature in black ink, appearing to read 'Charles', followed by a horizontal line.

Charles Severance

Professor, School of Information
University of Michigan



Verified Certificate
Issued March 31, 2021

Valid Certificate ID
0afb9ef9968a4e9087a9f463d779e734

Verified Certificate

This is to certify that

QiFeng Liang

successfully completed and received a passing grade in

**py4e101x: Programming for Everybody (Getting Started
with Python)**

a course of study offered by MichiganX, an online learning initiative of the University of
Michigan.



A handwritten signature in black ink, appearing to read 'Chuck', followed by a horizontal line.

Charles Severance

Professor, School of Information
University of Michigan

Verified Certificate

This is to certify that

QiFeng Liang

successfully completed and received a passing grade in

ML0101EN: Machine Learning with Python: A Practical Introduction

a course of study offered by IBM, an online learning initiative of IBM.



A handwritten signature in black ink, reading "Joseph Santarcangelo".

Joseph Santarcangelo

Data Scientist

IBM

Verified Certificate

This is to certify that

QiFeng Liang

successfully completed and received a passing grade in

PY0101EN: Python Basics for Data Science

a course of study offered by IBM, an online learning initiative of IBM.



A handwritten signature in black ink, reading "Joseph Santarcangelo".

Joseph Santarcangelo

Data Scientist

IBM

Verified Certificate

This is to certify that

QiFeng Liang

successfully completed and received a passing grade in

CPP.PRG.1: Introduction to Programming in C++

a course of study offered by NYUx, an online learning initiative of New York University.



A handwritten signature in black ink, appearing to read "Aspen Olmsted".

Aspen Olmsted

Adjunct Professor
New York University

Verified Certificate

This is to certify that

QiFeng Liang

successfully completed and received a passing grade in

Data8.1x: Data Science: Computational Thinking with Python

a course of study offered by BerkeleyX, an online learning initiative of University of California, Berkeley.



Verified Certificate
Issued August 6, 2021

Valid Certificate ID
355048e78c6b438883dbd8cd6afc3b07

Berkeley

A handwritten signature in black ink, appearing to read 'Ani Adhikari'.

Ani Adhikari

Teaching Professor of Statistics
University of California, Berkeley

A handwritten signature in black ink, appearing to read 'John DeNero'.

John DeNero

Assistant Teaching Professor of Computer Science
University of California, Berkeley

A handwritten signature in black ink, appearing to read 'David A. Wagner'.

David Wagner

Professor of Computer Science
University of California, Berkeley

Verified Certificate

This is to certify that

QiFeng Liang

successfully completed and received a passing grade in

**CS1331xl: Introduction to Object-Oriented Programming
with Java I: Foundations and Syntax Basics**

a course of study offered by GTx, an online learning initiative of the Georgia Institute of Technology.

GTx



Dr. Olufisayo Omojokun

Senior Lecturer

Georgia Tech College of Computing



Dr. Charles Isbell

John P. Imlay Dean of Computing
Georgia Tech College of Computing

Verified Certificate

This is to certify that

QiFeng Liang

successfully completed and received a passing grade in

CS1301xIV: Computing in Python IV: Objects & Algorithms

a course of study offered by GTx, an online learning initiative of the Georgia Institute of Technology.

GTx



Dr. David Joyner

Executive Director of Online Education & OMSCS

Georgia Tech College of Computing



Dr. Nelson Baker

Dean of Professional Education

Georgia Tech Professional Education



Dr. Zvi Galil

Former John P. Imlay Dean of Computing

Georgia Tech College of Computing



Dr. Charles Isbell

John P. Imlay Dean of Computing

Georgia Tech College of Computing



Verified Certificate
Issued July 14, 2021

Valid Certificate ID
0fefb7ca5e1c44cda1e7bb898e2b93b9

Verified Certificate

This is to certify that

QiFeng Liang

successfully completed and received a passing grade in

CS1301xII: Computing in Python II: Control Structures

a course of study offered by GTx, an online learning initiative of the Georgia Institute of Technology.



Verified Certificate
Issued June 30, 2021

Valid Certificate ID
effed80745044b35abc6520b3a4fe48c



Dr. David Joyner

Executive Director of Online Education & OMSCS
Georgia Tech College of Computing

Dr. Nelson Baker

Dean of Professional Education
Georgia Tech Professional Education

Dr. Zvi Galil

Former John P. Imlay Dean of Computing
Georgia Tech College of Computing

Dr. Charles Isbell

John P. Imlay Dean of Computing
Georgia Tech College of Computing

Verified Certificate

This is to certify that

QiFeng Liang

successfully completed and received a passing grade in

PH526x: Using Python for Research

a course of study offered by HarvardX, an online learning initiative of Harvard University.

HarvardX



Jukka-Pekka "JP" Onnela
Associate Professor of Biostatistics
Harvard University



Verified Certificate
Issued June 19, 2021

Valid Certificate ID
510ee6e08463443683cd3bb347a8722f

Verified Certificate

This is to certify that

QiFeng Liang

successfully completed and received a passing grade in

FCS.OS.1: Computer Hardware and Operating Systems

a course of study offered by NYUx, an online learning initiative of New York University.



A handwritten signature in black ink, appearing to read "Aspen Olmsted".

Aspen Olmsted
Adjunct Professor
New York University



Verified Certificate
Issued April 10, 2021

Valid Certificate ID
f9ed94d3a35049d6837e4a5ec2044831

Verified Certificate

This is to certify that

QiFeng Liang

successfully completed and received a passing grade in

CSX0001: Computer Science 101

a course of study offered by StanfordOnline, an online learning initiative of Stanford University.

Stanford | ONLINE



Nick Parlante

Senior Lecturer, Computer Science
Stanford University



Verified Certificate
Issued April 6, 2021

Valid Certificate ID
8278b552ada8466fb4b6b458f160d94f