



07/27/2020

Abderrazak Bannour Chaka

has successfully completed

Applied Text Mining in Python

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

A handwritten signature in black ink, reading 'V. G. Vinod Vydiswaran'.

V. G. Vinod Vydiswaran
Assistant Professor
School of Information

COURSE CERTIFICATE



Verify at coursera.org/verify/EXPR5KYHTHXT

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