



**13 Courses**

**Introduction to Data Engineering**

**Python for Data Science, AI & Development**

**Python Project for Data Engineering**

**Introduction to Relational Databases (RDBMS)**

**Databases and SQL for Data Science with Python**

**Hands-on Introduction to Linux Commands and Shell Scripting**

**Relational Database Administration (DBA)**

**ETL and Data Pipelines with Shell, Airflow and Kafka**

**Getting Started with Data Warehousing and BI Analytics**

**Introduction to NoSQL Databases**

**Introduction to Big Data with Spark and Hadoop**

**Machine Learning with Apache Spark**

**Data Engineering Capstone Project**



Nov 23, 2023

**Nguyen Duy Phong**

has successfully completed the online, non-credit Professional Certificate

## IBM Data Engineering

In this Professional Certificate, learners developed essential knowledge and skills to perform the many tasks in an entry-level data engineering role. By completing over a dozen courses in the program, the earner of this Professional Certificate has demonstrated a firm grasp on and practical experience with fundamentals of Relational Databases, Database Architecture, Design, & Administration, Data Warehousing, Querying databases with SQL and BI Tools, ETL with Python Programming language and Shell Scripts, NoSQL, and Big Data processing using Apache Spark. Learners have applied all these skills to complete a Capstone Project involving the design, deployment and management of a complete data engineering platform inspired by a real-world data analytics requirements scenario.

Rav Ahuja, Program  
Director, IBM Skills  
Network

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:

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