



# DANG NHAT

## DATA ENGINEER

- 12/04/1995
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## Profile



## Education

### Obninsk Institute for Nuclear Power Engineering

B.Sc in Nuclear Power Engineering and Thermal Physics (2014-2019).

GPA: 4.6/5.0

### IBM Skills Network

Data Engineering (2021-2022).

### DataCamp

Data Engineer (2021-2022).

### Google Career

IT Automation with Python (2021-2022).

### Google Career

Data Analytics (2021-2022).

## Certificate

IBM - Big Data 101.

IBM - Hadoop 101.

DataCamp - Building Data Engineering Pipelines in Python.

freeCodeCamp - Data Analysis with Python.

Hackerrank - Problem Solving Basic.

Hackerrank - Python Basic.

Hackerrank - SQL Advanced.

Sololearn - Python Intermediate.

Sololearn - SQL Intermediate.

## Working Experience

Oct 2022 – Present

### Data Engineer

PECC2

Contribute to Big Data Development Plan for Company. Write automation script with Python, shell scripting on Linux to help company decrease working time.

Monitoring health of server computers, ingest data from power plants to database server at Company. Cleaning, manipulating, processing data with 1GB/day (estimated), ensure data integrity, ethics and available to Data Scientist and ML Teams.

Contributing to interactive reports and dynamic dashboard will be sent streaming to the end users to help them make decisions and improve customer experience.

Core technologies: Big Data Analytics, ETL, Data Engineering, Python, Shell, Git, Linux.

Oct 2019 – Oct 2022

### Mechanical Piping Engineer

PECC2

BIM Manager and Mechanical Lead. Thermal-Mechanical and piping engineering.

## Project

### IBM Data Engineering

Implement webscraping and use APIs to extract data with Python (BeautifulSoup, Selenium, Scrapy).

Create, design, & manage relational databases & apply database administration (DBA) concepts to RDBMSs such as MySQL, PostgreSQL, & IBM Db2. Compose more powerful queries with advanced SQL techniques like views, transactions, stored procedures and joins. Monitor and optimize important aspects of database performance. Backing up and restoring databases, managing user roles and permissions. Troubleshoot database issues.

Develop shell scripts using Linux commands, environment variables, pipes, and filters. Schedule cron jobs in Linux with crontab.

Develop working knowledge of NoSQL & Big Data using MongoDB, Cassandra, Cloudant, Hadoop, Apache Spark, Spark SQL, Spark ML, and Spark Streaming.

Implement ETL & Data Pipelines with Bash, Airflow & Kafka; architect, populate, deploy Data Warehouses; create BI reports & interactive dashboards.

Core technologies: Data Science, ETL & Data Pipelines, RDBMS, NoSQL and Big Data, Apache Spark, Python Programming, Data Analysis, SQL, Shell Scripting.

### Automation

Use Python external libraries to create and modify documents, images, and messages.

Automate updating catalog information. Fetching and working with supplier data images. Process Text Files with Python Dictionaries.

Using APIs to interact with web services. Uploading images, descriptions to web server. Write a script that summarizes and processes sales data into different categories. Generate a PDF report and send it through email using Python.

Implement webscraping (real estate) and use APIs to extract data with Python (BeautifulSoup, Selenium, Scrapy).

Write a script to check the health status of the system.

Core technologies: Bash, Linux, Python, Shell Scripting.

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DATA ENGINEER

## Languages

Vietnamese

English

Russian

Chinese

## Project

### DataCamp

SQL at intermediate level. Database Design.  
Python at intermediate level. Ingest data from external sources with many of different file types.  
Cleaning data, ensure data integrity, completeness, uniformity.  
Using record linkage technique to merge multiple datasets together, used when values have typos or different spellings.  
Writing efficient, timing and profiling code. Pandas optimizations.  
Streamlined data ingestion with pandas and data visualization.  
Git, Cloud Computing.  
Software Engineering Principles in Python.  
Understand Resilient Distributed Datasets, using pyspark to create a data transformation pipeline, to store data in distributed file system, transformation and actions datasets. Spark SQL for Big Data Analytics. Manipulate, clean, query data with pyspark.  
Testing data pipeline. Manage and Orchestrate Workflows with Apache Airflow, DAG schedule.  
Core technologies: Python, Spark, ETL, Airflow, SQL, Git.

### Big Data with Spark

Using the Spark Python API, PySpark, leverage parallel computation with large datasets, and get ready for high-performance machine learning.  
From cleaning data to creating features and implementing machine learning models, execute end-to-end workflows with Spark.  
Get data into Spark and then delve into the three fundamental Spark Machine Learning algorithms: Linear Regression, Logistic Regression/Classifiers, and creating pipelines.  
Data wrangling and feature engineering with PySpark.  
Build recommendation engines using Alternating Least Squares in PySpark.  
Core technologies: Big Data, ETL & Data Pipelines, Apache Spark, SparkSQL, SparkMLlib, Python Programming, Java Programming, SQL, Shell Scripting.

### Analytics

Demographic Data, Medical Data, Page View Time Series Visualizer: analyze and visualize a dataset.  
Sea Level Predictor: analyze the global average sea level change since 1880, predict the sea level change through year 2050.  
Cyclistic bike share: analyze and visualize to get insights from 1 millions data membership riders. Identify trend from Cyclistic's historical bike trip data and then planning digital media could affect marketing tactics.  
FitBit fitness tracker: analyze the user data from FitBit Fitness Tracker to gain insights into how consumers are using the FitBit app and discover trends for Bellabeat marketing strategy.  
Core technologies: Data Analysis with Python by using library Numpy, Pandas, Seaborn, Matplotlib, MySQL, R, Tableau.

## Skills

Domain	Data Structures & Algorithms, Probability & Statistics.
Programming	Python, R, Java, Scala, LaTeX.
Scripting	Bash, Shell with Linux, Git.
Database	SQL(MySQL, PostgreSQL), NoSQL(MongoDB, Cassandra).
Big Data	Hadoop, Spark, Kafka.
Cloud	GCP, IBM.
Visualization	Tableau, Power BI.
Soft Skills	Detail-oriented, Structured & Analytical Thinking, Problem Solving, Teamwork, Diligent, Energetic, Resilient.