

# Big Data

Big Data Course

# Mostafa Nabieh



وزارة الاتصالات  
وتكنولوجيا المعلومات  
MINISTRY OF COMMUNICATIONS  
AND INFORMATION TECHNOLOGY



UDACITY



PLURALSIGHT



YOUR SPACE TO LEARN  
FUTURE SKILLS

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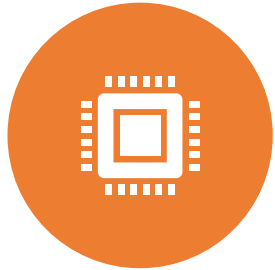




**Mostafa Nabieh**

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WHAT IS DATA  
ENGINEERING?



BIG DATA  
ECOSYSTEM



BIG DATA  
LIFECYCLE



CAREER  
OPPORTUNITIES

# Career Opportunities in Data Engineering

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- According to LinkedIn's 2020 Emerging Jobs Report, data engineering now joins machine learning and data science as one of the top-10 "jobs experiencing tremendous growth" in the U.S., with industries from retail to automotive taking notice and making this hard-to-hire talent a part of their teams.
- Dice Tech Job Report of 2020 lists data engineering as the fastest-growing tech occupation with a year-over-year growth of 50%. And with more and more companies competing to find the right talent for their expanding data infrastructure, it is expected to grow even further in years to come.

The Dice logo, featuring the word "Dice" in a bold, white, italicized, sans-serif font, centered within a red rounded rectangle.

***Dice***



# Different Roles in Data Engineering

- There's a wide variety of job roles available for data engineers. Job titles are fluid, and a data engineering role can look a little different at every company.



Data  
Architecture



Database Design  
and Architecture



Data  
Platforms



Data Pipelines  
and ETL



Data  
Warehouses



Big Data

# Different Roles in Data Engineering

- All data engineering roles require you to have knowledge of operating systems, languages, databases, infrastructure components, and the potential application of data in business.



Data  
Architect



Database  
Architect



ETL  
Engineer



Data Warehouse  
Engineer



Big Data  
Engineer



# Career Growth Path



Associate Data Engineer



Data Engineer



Senior Data Engineer



Lead Data Engineer



Principal Data Engineer

# Emerging Roles

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- Work with big data stores, platforms, and processing tools like Hadoop and Spark. They specialize in the management of big data pipelines, and the movement and processing of data at scale.
- Design and implement machine learning algorithms, and work with large datasets of structured and unstructured data. This role is an intersection of data engineering and data science and AI skills.



Big Data  
Engineers



Machine Learning  
Engineers

Thank  
you