# Introduction to Data Engineer Profile

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DATA ENGINEERING

# Why we did not have a Data Engineer profile earlier?



# Data expanding







When I say Everything is getting record.

I mean it ©



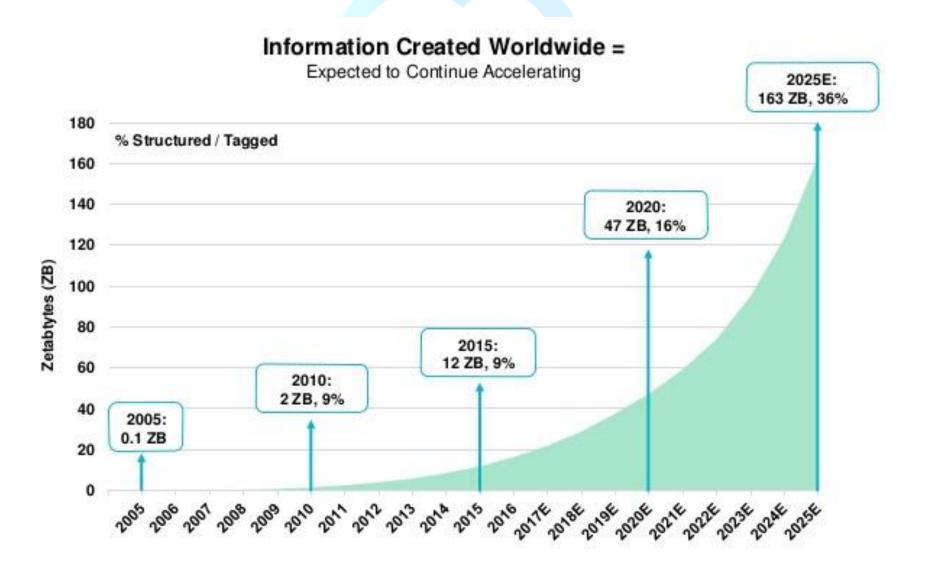
# Social media stats



- Whatsapp handle 60 billion messages a day
- Google process 40,000 search queries every second
- Average user spends 35 minutes on Facebook a day
- 500 million Tweets sent each day
- 300 hours of video are uploaded to Youtube every minute



# **Exponential growth of Data**







1 Zettabytes = 1 trillion Gigabyte



# the 10-Megabyte Computer System



- 10-Megabyte Hard Disk
- 51/4" Dual-Density Floppy Disk Back-up
- 8-Bit Microprocessor (Optional 16-bit Microprocessor)
- Memory-Mapped Video Display Board
- Disk Controller
- Standard 64K RAM (Optional 256K RAM)
- . 10-Slot S-100 Motherboard

only \$5995

COMPLETE

New From IMSAI

- 28-Amp Power Supply
- 12" Monitor
- Standard Intelligent 62-Key ASCII Keyboard (Optional Intelligent 86-Key ASCII Extended Keyboard)
- . 132-Column Dot-Matrix Printer
- CP/M\* Operating System

You Read It Right ...
All for \$5995!

IMSAI...Thinking ahead for the 80's

415/635-7615

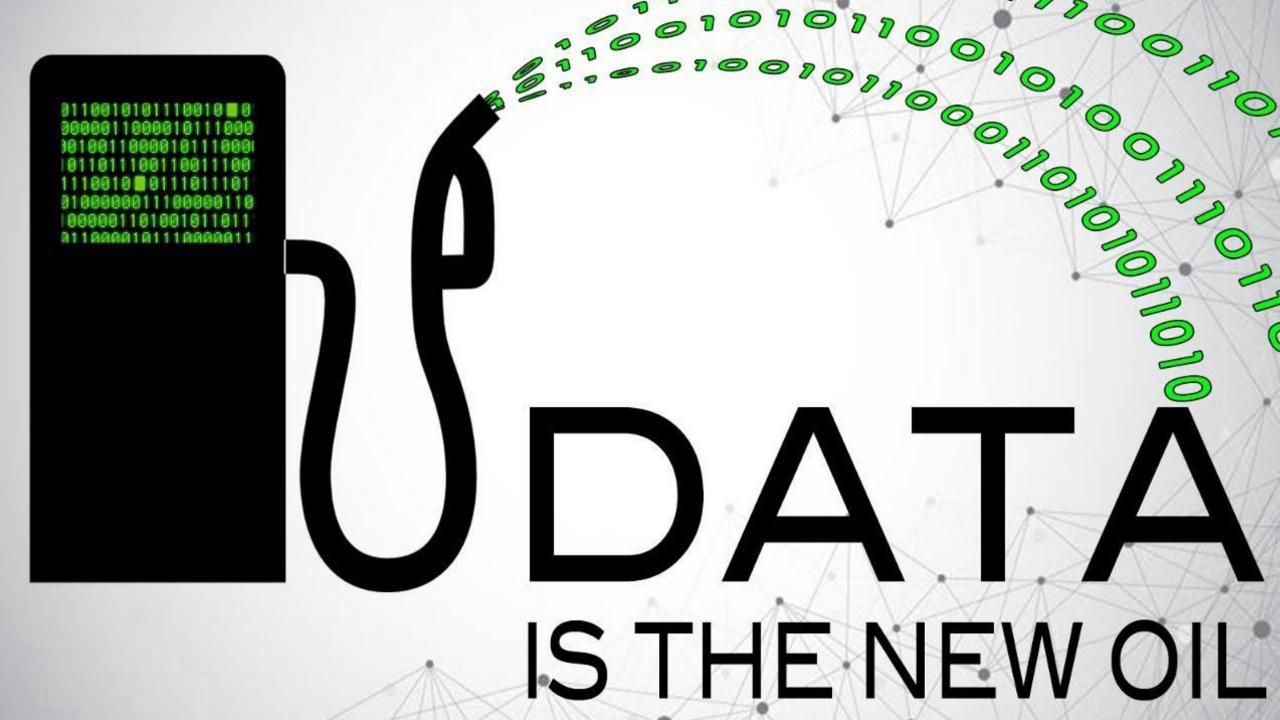
Computer Division of the Fischer-Freitas Corporation

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\*CP/M is a trademark of Digital Research. Imsai is a trademark of the Fischer-Freitas Corporation

Once upon a time ©

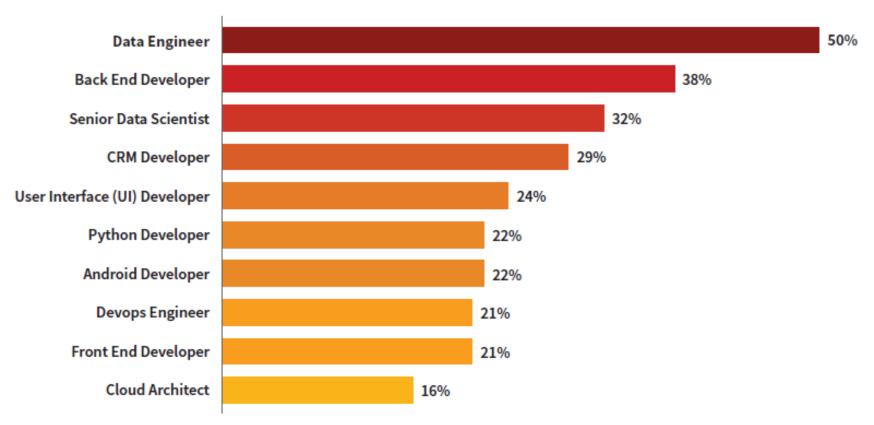




# Data Engineer – Top in Demand Job

### FASTEST GROWING TECH OCCUPATIONS

YEAR-OVER-YEAR GROWTH





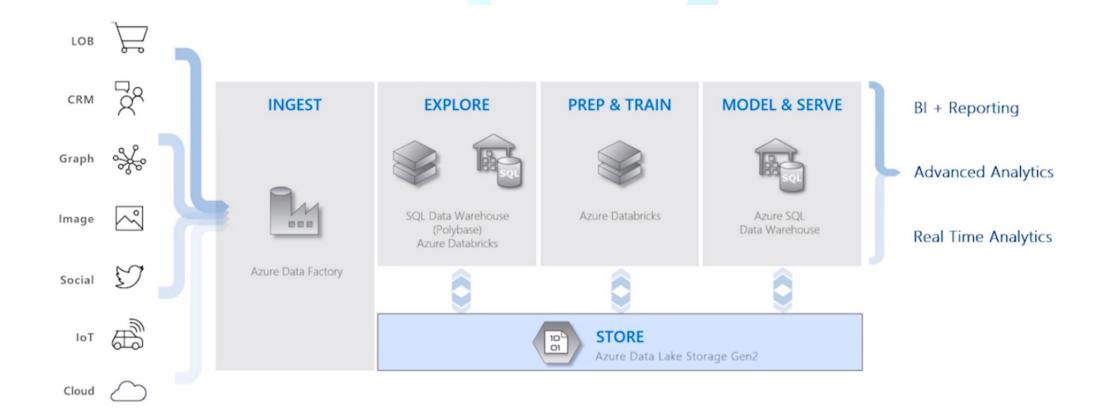
# Why Data Engineers?



We need dedicated professionals in order to handle this large amount of information.



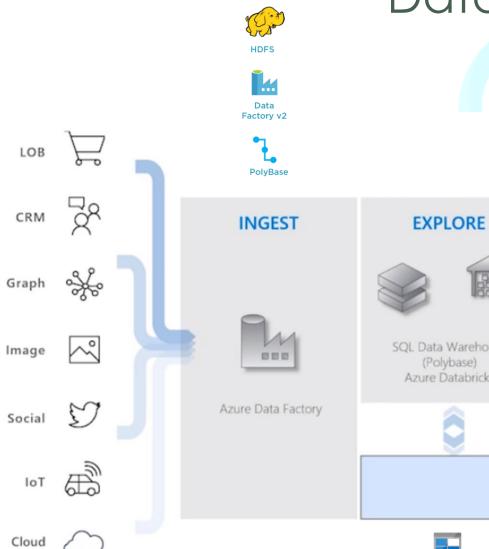
# Data Life Cycle





Source: Microsoft

# Data Life Cycle











### **PREP & TRAIN**





SQL Data Warehouse (Polybase) Azure Databricks



Azure Databricks

### **MODEL & SERVE**



Azure SQL Data Warehouse BI + Reporting

**Advanced Analytics** 

Real Time Analytics



## STORE

Azure Data Lake Storage Gen2









Source: Microsoft

