



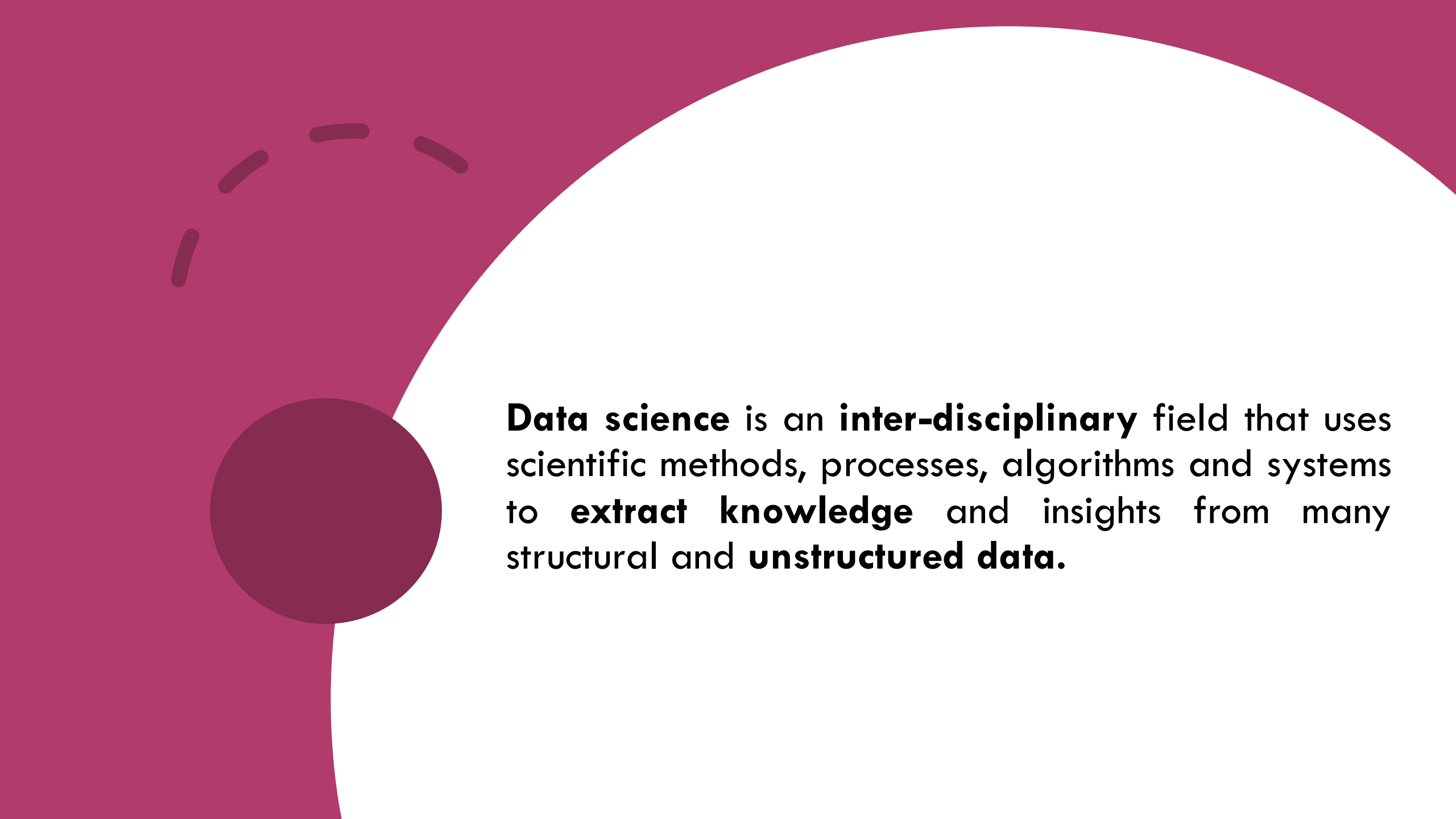
What is Data Science

1.2 Exercises

By Thip Rattanaivilay

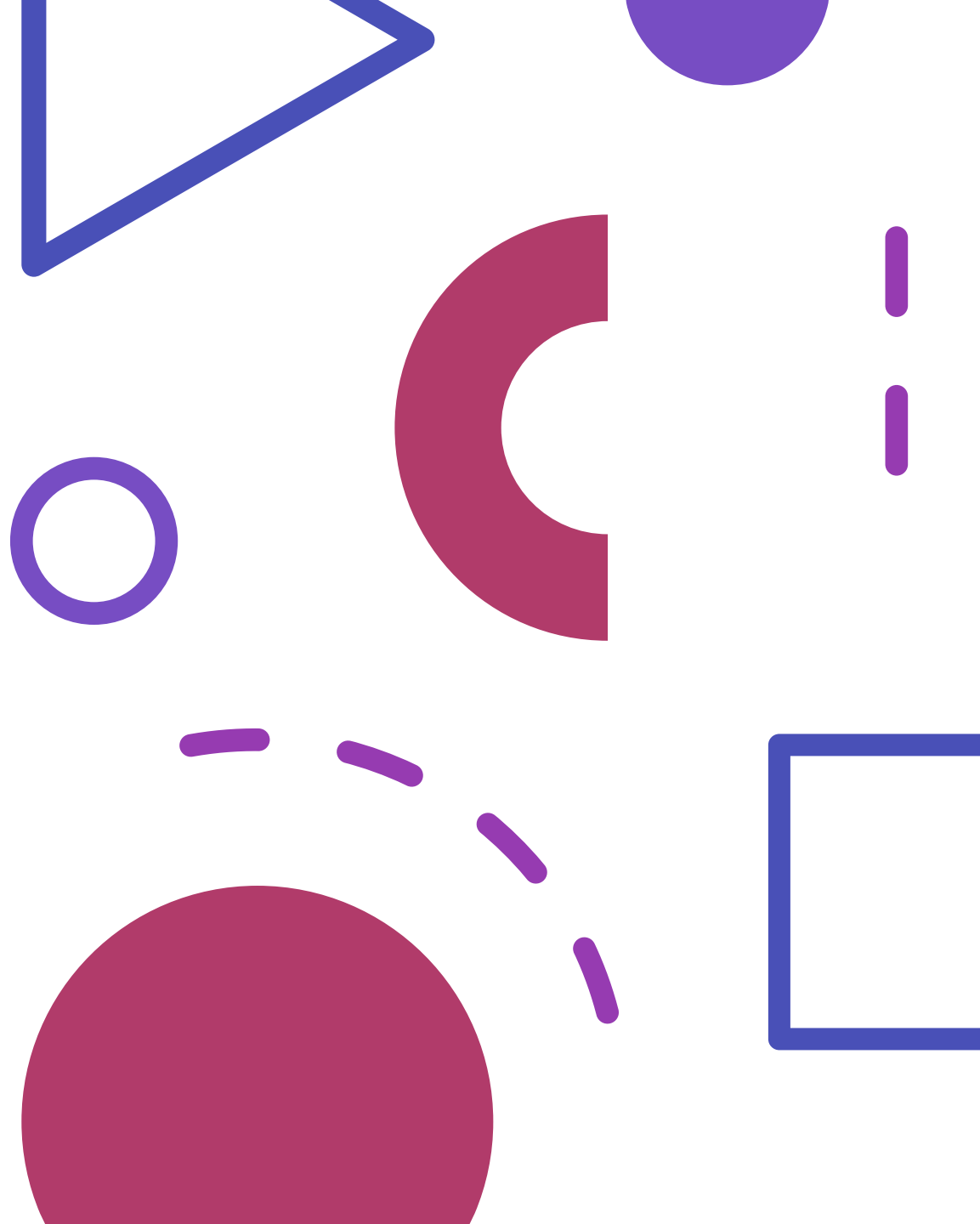


What is Data Science?



Data science is an **inter-disciplinary** field that uses scientific methods, processes, algorithms and systems to **extract knowledge** and insights from many structural and **unstructured data**.

Data science is related
to **data mining**, **machine
learning** and **big data**.





How did modern data Science emerge?



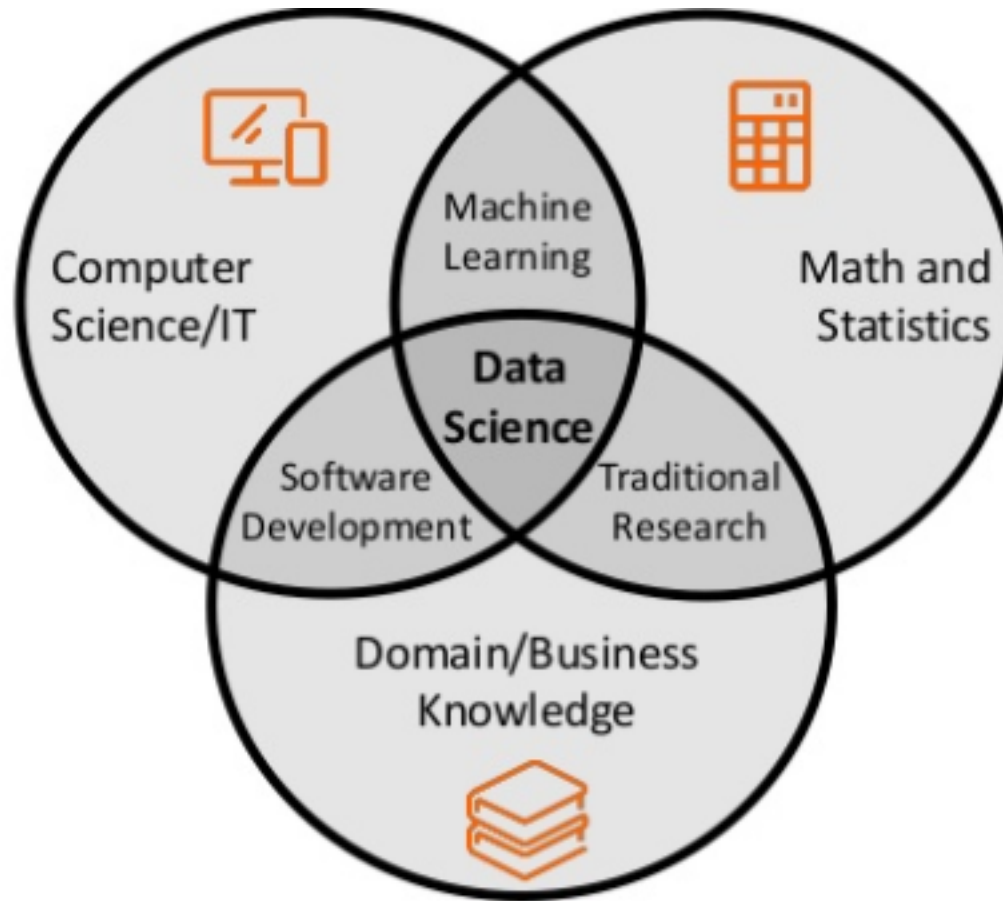
Modern data science emerged in tech, from optimizing Google search rankings and LinkedIn recommendations to influencing the headlines BuzzFeed editors run. But it's poised to transform all sectors, from retail, telecommunications, and agriculture to health, trucking, and the penal system. Yet the terms “data science” and “data scientist” aren't always easily understood, and are used to describe a wide range of data-related work.

History Of Data Science

The term “**data science**” has been traced back to 1974, when Peter Naur proposed it as an alternative name for computer **science**. In 1996, the International Federation of Classification Societies became the first conference to specifically feature **data science** as a topic. However, the definition was still in flux.

What data scientists do?

We now know how data science works, at least in the tech industry. First, data scientists lay a solid data foundation in order to perform robust analytics. Then they use online experiments, among other methods, to achieve sustainable growth. Finally, they build machine learning pipelines and personalized data products to better understand their business and customers and to make better decisions. In other words, in tech, data science is about infrastructure, testing, machine learning for decision making, and data products.



Data Science Process



Questions



Data



Exploratory Data Analysis



Formal Modelling



Interpretation



Communication



Result

Data Science Tools



Data Science: Case Study



**Marketing &
Advertising**



**Customer
Service**



**Retention &
Loyalty**



**Customer
Experience**



Conclusion

Data scientists today draw largely from extensions of the “analyst” of years past trained in traditional disciplines. As data science becomes an integral part of many industries and enriches research and development, there will be an increased demand for more holistic and more nuanced data science roles.



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