LEARNING DATA SCIENCE

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What is Data Science?

It is the use of mathematical techniques and tools to draw insights from data.

It involves collecting, analyzing, visualizing and modeling of data.



Why learn Data Science?

- To utilize the abundance of data
- To gain problem solving skills
- There is opportunity for growth in the field
- It is high in demand
- It is a lucrative career

Data career pathways



Becoming a data scientist

- Strong background in Mathematics and Statistics
- Learn to code: Python, R, SQL e.t.c
- Master visualization and reporting
- Understand databases
- Build projects

Breaking it down: How to learn

Active learning

Pick a project you would like to do some analysis and modeling on.

Life Cycle of a Data Science project

- CRISP-DM: Business Understanding, Data Understanding, Data Preparation, Modeling, Evaluation, Deployment
- Pick a language: R or Python.
- As you learning about what happens in one stage, implement it in your project.
 - o DG^3. Details. Google. Git. Grit

Where you can start

- Blogs and websites such as analytics Vidhya or KDnuggets
- ☐ MOOCs
- Bootcamp or school such as Moringa School or Udacity
- Books
- Youtube eg <u>titanic dataset tutorial</u>

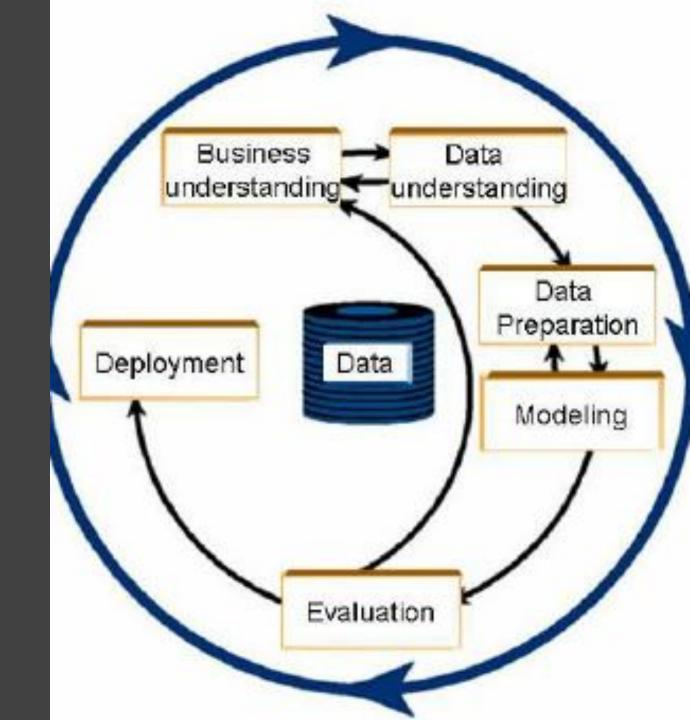


Sources of data

- Kaggle: www.kaggle.com
- Zindi: <u>www.zindi.africa</u>
- amazon:
 - aws.amazon.com/opendata/public-datasets
- opendata: <u>www.opendata.go.ke</u>
- BigQuery: <u>cloud.google.com/public-datasets</u>

Applying your knowledge

- Projects
- Kaggle competitions
- Zindi competitions
- Hackathons



How to put yourself out there

Blog about your project and share code on github

 \Box Tweet about your insights from a project or experience in a competition

Write technical papers/posters and share/speak at conferences

What I wish I knew when starting out

Do's

- Pick a language and go with it.
- Google is your friend
- Fail as fast as possible
- Finish what you started

Donts

- Try to learn everything at the same time
- Stop thinking about the best way to do it(paralysis of analysis)
- Do not fall into rabbit holes

Try

- As many projects
- Teach someone

Key Takeaways

- ☐ Learn the life cycle of a data science project
- Learn by doing: Pick a project
- ☐ Share your work

References

- https://github.com/academic/awesome-datascience
- □ https://towardsdatascience.com/how-to-learn-data-science-for-free-e da10f04d083
- O'reilly Data Science from Scratch

THANK YOU!

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