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COMMON MISTAKES

AMATEUR DATA SCIENTISTS MAKE

HOW TO AVOID THEM?



The demand for data scientists is huge, and experts acknowledge the shortfall of talent in the industry. Most of these resources online don't teach you what the industry is looking for in a data scientist. This can lead one to fall into multiple traps and make the same mistake over and over again.

1

Learning Theoretical Concepts without Applying Them



- Learning process should be a healthy balance between theoretical and practical
- As soon as you learn a concept, find a dataset or problem where you can use it
- You can also use AV's DataHack platform to take part in practice problems and ongoing competitions

2

Using ML Techniques without Learning the Prerequisites

- ML components you should know about - Statistics, Probability, Linear Algebra, Calculus
- Tons of resources available to learn/brush-up
- Enroll in Analytics Vidhya's Introduction to Data Science course



3

Relying Solely on Certifications and Degrees

- Use real-world datasets and ensure you write a blog about your work
- Ask for feedback from the community
- Apply for internships to understand how a data science project works



4

Assuming ML Competitions are what Real-Life Jobs are Like

- Talk to data scientists on social media
- Learn about how a data science project works
- Know what different types of roles a team has (from a data engineer to a data architect)



5

Focusing on Model Accuracy over Interpretability

- Practice making simpler models and then explaining them to non-technical people
- Add further complexity; this will teach you when to stop, and why simple models are always given preference



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Using too Many Data Science Terms in your Resume

- Use bullet points
- Only list those techniques which you know extremely well and can demonstrate experience in
- Have a set template and make changes to it according to the role you apply to



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Using Tools and Libraries without understanding the Problem

- Work on datasets pertaining to specific domains (this will be a MASSIVE point in your resume)
- Read up on how companies in your domain are using data science



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Not Spending Enough Time on Exploration and Visualization

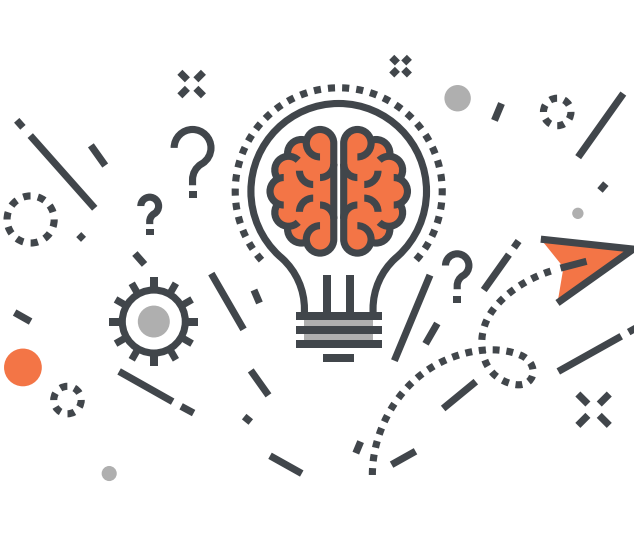
- Practice! Next time you work on a dataset, spend more time on this step
- Ask questions! Ask your manager, ask domain experts, search for solutions on the internet and if you don't find any, ask on social media!



9

Not Having a Structured Approach to Problem Solving

- Acquire a structured thinking mindset through simple training and a disciplined approach
- Go through Analytics Vidhya's articles on structured thinking to shape your way of approaching a problem



10

Trying to Learn Multiple Tools at the Same Time

- Pick one tool and stick to it until you have mastery over it
- Each tool has a great user community which you can tap into whenever you get stuck
- The aim is to learn data science through the tool, not the tool through data science.



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Not Studying in a Consistent and Disciplined Manner

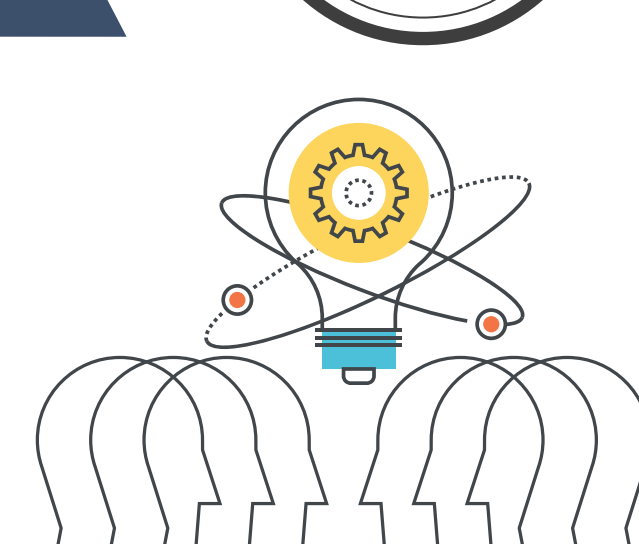
- Set goals for yourself. Map out a time table and stick it on your wall
- Plan how and what you want to study and set deadlines for yourself (like learning a technique and applying it in a competition)
- Be ready to put in long hours



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Shying Away from Discussions and Competitions

- Start participating in discussions and competitions!
- If you learn a new technique out of the whole thing, you have won in your own right



13

Overlooking Soft Skills, especially Communication Skills

- Explain data science terms to a non-technical person
- If you're working in a small to medium-sized company, find a person in the marketing or sales department to do this with
- Practice is key when it comes to soft skills



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