

Get a data science job or your money back

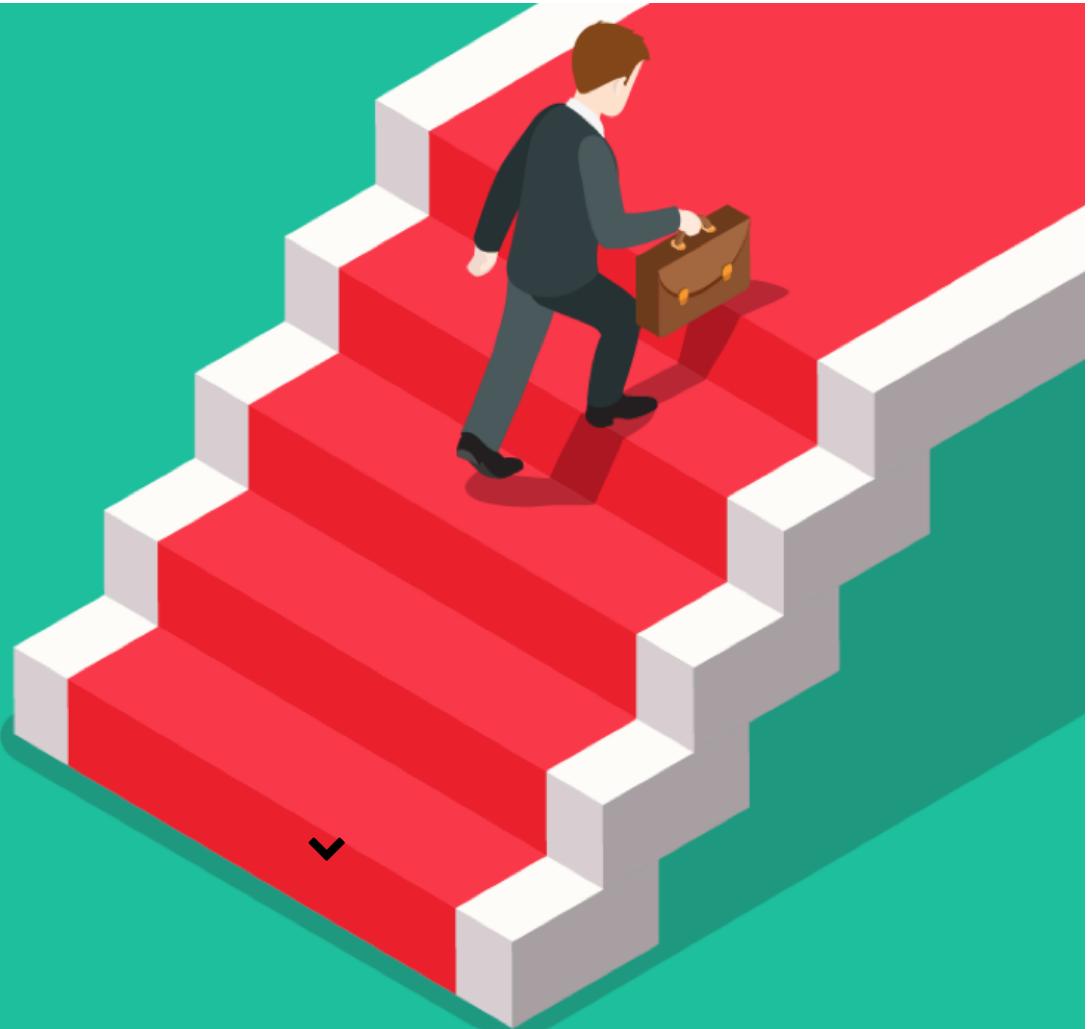
[Click Here](#)

1.1k
Shares

281

10

8



Data Science Career Track

Master data science skills, and get a job or your money back

We've traditionally set up our Data Science Career Track (<https://www.springboard.com/courses/data-science-career-track/>) in several categories. The first really has to do with the algorithms and theory behind machine learning. You'll have to show an understanding of how algorithms compare with one another and how to measure their efficacy and accuracy in the right way. The second category has to do with your **AUTHOR** Roger Huang (<https://www.springboard.com/blog/author/roger/>)

Get a data science job or your money back

[Click Here](#)



stry and how you keep up with the latest machine learning trends. Finally, (<https://www.springboard.com/blog/author/roger/>) or industry-specific questions that test your ability to take your general

1.1k
Shares

281

10

8

1



Data Science Career Track

Master data science skills, and get a job or your money back

you'll lose bias but gain some variance. In order to get the optimally reduced amount of error, you'll have to tradeoff bias and variance. You don't want either high bias or high variance in your model.

AUTHOR

Roger Huang (<https://www.springboard.com/blog/author/roger/>)

Get a data science job or your money back

[Click Here](#)



[s the difference between supervised and unsupervised machine learning?](https://www.springboard.com/blog/author/roger/)
(<https://www.springboard.com/blog/author/roger/>)
[.quora.com/What-is-the-difference-between-supervised-and-unsupervised-](https://www.quora.com/What-is-the-difference-between-supervised-and-unsupervised-)

1.1k
Shares

281

10

8



Data Science Career Track

Master data science skills, and get a job or your money back

The ROC curve is a graphical representation of the contrast between true positive rates and the false positive rate at various thresholds. It's often used as a proxy for the trade-off

AUTHOR

between the sensitivity of the model (true positives) vs the fall-out or the probability it will

trigger a false alarm (false positives).

Roger Huang (<https://www.springboard.com/blog/author/roger/>)

Get a data science job or your money back

[Click Here](#)



(<https://www.springboard.com/blog/author/roger/>)

1.1k
Shares

281

10

8



Data Science Career Track

Master data science skills, and get a job or your money back

(https://www.springboard.com/workshops/data-science-career-track?utm_source=blog&utm_medium=article&utm_campaign=adlog-sidebar)

Q6- What is Bayes' Theorem? How is it useful in a machine learning context?

AUTHOR

Roger Huang (<https://www.springboard.com/blog/author/roger/>)

Get a data science job or your money back

[Click Here](#)



(<https://www.springboard.com/blog/author/roger/>)

Bayes' Theorem is the basis behind a branch of machine learning that most notably includes the Naive Bayes classifier. That's something important to consider when you're faced with machine learning interview questions.

1.1k
Shares

281

10

8



Data Science Career Track

Master data science skills, and get a job or your money back

(https://www.springboard.com/workshops/data-science-career-track?utm_source=blng&utm_medium=dssidebar&utm_campaign=dshidebar)

Bayes' Theorem is the basis behind a branch of machine learning that most notably includes the Naive Bayes classifier. That's something important to consider when you're faced with machine learning interview questions.

Roger Huang (<https://www.springboard.com/blog/author/roger/>)

Get a data science job or your money back

[Click Here](#)



[“naive Bayes” naive? \(Quora\)](https://www.quora.com/Why-is-naive-Bayes-naive?utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar) (https://www.quora.com/Why-is-naive-Bayes-naive?utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar)
(<https://www.springboard.com/blog/author/roger/>)

1.1k
Shares

281

10

8



Data Science Career Track

Master data science skills, and get a job or your money back

([https://www.springboard.com/workshops/data-science-career-track?
utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar](https://www.springboard.com/workshops/data-science-career-track?utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar))

AUTHOR

Roger Huang (<https://www.springboard.com/blog/author/roger/>)



Get a data science job or your money back

[Click Here](#)



[Roger Huang \(https://www.springboard.com/blog/author/roger/\)](https://www.springboard.com/blog/author/roger/)

1.1k
Shares

281

10

8



Data Science Career Track

Master data science skills, and get a job or your money back

attempt to 100 basic questions at you just to make sure you're on top of your game and you've prepared all of your bases.
[https://www.springboard.com/workshops/data-science-career-track?
utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar](https://www.springboard.com/workshops/data-science-career-track?utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar)

AUTHOR

Roger Huang (<https://www.springboard.com/blog/author/roger/>)

Get a data science job or your money back

[Click Here](#)



pening when in fact something is
(<https://www.springboard.com/blog/author/roger/>)

1.1k
Shares

281

10

8



Data Science Career Track

Master data science skills, and get a job or your money back

([https://www.springboard.com/workshops/data-science-career-track?
utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar](https://www.springboard.com/workshops/data-science-career-track?utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar))

AUTHOR

Roger Huang (<https://www.springboard.com/blog/author/roger/>)



Get a data science job or your money back

[Click Here](#)



(<https://www.springboard.com/blog/author/roger/>)

1.1k
Shares

281

10

8



Data Science Career Track

Master data science skills, and get a job or your money back

More reading: [What is the difference between a Generative and Discriminative Algorithm? \(Stack Overflow\)](https://www.springboard.com/workshops/data-science-career-track?StackOverflow) (<https://www.springboard.com/workshops/data-science-career-track?StackOverflow>)

AUTHOR

Roger Huang (<https://www.springboard.com/blog/author/roger/>)



Get a data science job or your money back

[Click Here](#)



iive models on classification tasks
(<https://www.springboard.com/blog/author/roger/>)

1.1k
Shares

281

10

8



Data Science Career Track

Master data science skills, and get a job or your money back

(https://www.springboard.com/workshops/data-science-career-track?utm_source=blog&utm_medium=sidebar&utm_campaign=blog-sidebar)

Reduced error pruning is one of the simplest decision rule campaigns. If it doesn't decrease predictive accuracy, keep it pruned. **AUTHOR** For example, this heuristic actually comes pretty close to an approach that would optimize for maximum accuracy.

Roger Huang (<https://www.springboard.com/blog/author/roger/>)

Get a data science job or your money back

[Click Here](#)



[Accuracy paradox \(Wikipedia\)](#) (https://en.wikipedia.org/wiki/Accuracy_paradox)
(<https://www.springboard.com/blog/author/roger/>)

1.1k
Shares

281

10

8

1



Data Science Career Track

Master data science skills, and get a job or your money back

(https://www.springboard.com/workshops/data-science-career-track?utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar)

1- Collect more data to even the imbalances in the dataset.
AUTHOR

2- Resample the dataset to correct for imbalances

Roger Huang (<https://www.springboard.com/blog/author/roger/>)

Get a data science job or your money back

[Click Here](#)



There is that you have a keen sense for what damage an unbalanced dataset (<https://www.springboard.com/blog/author/roger/>) can do to balance that.

1.1k
Shares

281

10

8



Data Science Career Track

Master data science skills, and get a job or your money back

This is a simple restatement (<https://www.springboard.com/workshops/data-science-career-track/>) of the possibility of overfitting training data and carrying the noise of that data through to the test set, thereby

providing inaccurate generalizations.

AUTHOR

Roger Huang (<https://www.springboard.com/blog/author/roger/>)

Get a data science job or your money back

[Click Here](#)



impler: reduce variance by taking into account fewer variables and
(<https://www.springboard.com/blog/author/roger/>)
by removing some of the noise in the training data.

1.1k
Shares

281

10

8



Data Science Career Track

Master data science skills, and get a job or your money back

(https://www.springboard.com/workshops/data-science-career-track?utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar)

Q25- What's the "kernel trick" and how is it useful?
AUTHOR

More reading: [Kernel method \(Wikipedia\)](https://en.wikipedia.org/wiki/Kernel_method) (https://en.wikipedia.org/wiki/Kernel_method)
Roger Huang (<https://www.springboard.com/blog/author/roger/>)

Get a data science job or your money back

[Click Here](#)



The inner products between the images of all pairs of data in a feature
(<https://www.springboard.com/blog/author/roger/>)

them the very useful attribute of calculating the coordinates of higher

1.1k
Shares

281

10

8



Data Science Career Track

Master data science skills, and get a job or your money back

You'll want to get familiar with the meaning of big data for different companies and the different tools they'll want. Spark is the big data tool most in demand now, able to handle immense datasets with speed. Be honest if you don't have experience with the tools

Roger Huang (<https://www.springboard.com/blog/author/roger/>)

Get a data science job or your money back

[Click Here](#)



(<https://www.springboard.com/blog/author/roger/>)
thm. Write the psuedo-code for a parallel implementation.

1.1k
Shares

281

10

8



Data Science Career Track

Master data science skills, and get a job or your money back

indexing.

([https://www.springboard.com/workshops/data-science-career-track?
utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar](https://www.springboard.com/workshops/data-science-career-track?utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar))

AUTHOR

Roger Huang (<https://www.springboard.com/blog/author/roger/>)



Get a data science job or your money back

[Click Here](#)



(<https://www.springboard.com/blog/author/roger/>)

John Smith

00
01

521-8976

1.1k
Shares

281

10

8



Data Science Career Track

Master data science skills, and get a job or your money back

A lot of machine learning interview questions of this type will involve implementation of machine learning models to a company's problems. You'll have to research the company and its industry in-depth, especially the revenue driver the company has, and the types of users the company takes on in the context of the industry it's in.

Roger Huang (<https://www.springboard.com/blog/author/roger/>)

Get a data science job or your money back

[Click Here](#)



[Startup Metrics for Startups \(500 Startups\)](#)

(<https://www.springboard.com/blog/author/roger/>)

(<https://dmc500hats.com/startup-metrics-for-pirates-long-version>)

1.1k
Shares

281

10

8



Data Science Career Track

Master data science skills, and get a job or your money back

(https://www.springboard.com/workshops/data-science-career-track?utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar)

AUTHOR

Roger Huang (<https://www.springboard.com/blog/author/roger/>)



Get a data science job or your money back

[Click Here](#)



(<https://www.springboard.com/blog/author/roger/>)

1.1k
Shares

281

10

8



Data Science Career Track

Master data science skills, and get a job or your money back

[https://www.springboard.com/workshops/data-science-career-track?
utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar](https://www.springboard.com/workshops/data-science-career-track?utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar)

More reading: [What are some of the best research papers/books for machine learning?](https://www.quora.com/What-are-some-of-the-best-research-papers/books-for-machine-learning)

(<https://www.quora.com/What-are-some-of-the-best-research-papers-books-for-Machine-learning>)

Roger Huang (<https://www.springboard.com/blog/author/roger/>)

Get a data science job or your money back

[Click Here](#)

 <https://www.springboard.com/blog/author/roger/>) by the scions of deep learning (from Hinton to Bengio to LeCun) can be a good reference paper and an

1.1k
Shares

281

10

8



Data Science Career Track

Master data science skills, and get a job or your money back

[https://www.springboard.com/workshops/data-science-career-track?
utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar](https://www.springboard.com/workshops/data-science-career-track?utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar)

Q39- Where do you usually source datasets?
AUTHOR

Roger Huang (<https://www.springboard.com/blog/author/roger/>)

Get a data science job or your money back

[Click Here](#)



(<https://www.springboard.com/blog/author/roger/>)
Interview questions like these try to get at the heart of your machine

1.1k
Shares

281

10

8



Data Science Career Track

Master data science skills, and get a job or your money back

([https://www.springboard.com/workshops/data-science-career-track?
utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar](https://www.springboard.com/workshops/data-science-career-track?utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar))

AUTHOR

Roger Huang (<https://www.springboard.com/blog/author/roger/>)

Get a data science job or your money back

[Click Here](#)



Springboard

(<https://www.springboard.com/blog/author/roger/>)

1.1k
Shares

281

10

8



Data Science Career Track

Master data science skills, and get a job or your money back

([https://www.springboard.com/workshops/data-science-career-track?
utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar](https://www.springboard.com/workshops/data-science-career-track?utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar))

AUTHOR

Roger Huang (<https://www.springboard.com/blog/author/roger/>)

Get a data science job or your money back

[Click Here](#)



(<https://www.springboard.com/blog/author/roger/>)

1.1k
Shares

281

10

8



Data Science Career Track

Master data science skills, and get a job or your money back

3 Comments

[Springboard Blog](#)

[Login](#) ▾

Heart [Recommend](#) 1

(https://www.springboard.com/workshops/data-science-career-track?utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar)

Sort by Best ▾

RC

AUTHOR

Join the discussion...



Get a data science job or your money back

[Click Here](#)



...is somewhat confusingly worded. You state:

(<https://www.springboard.com/blog/author/roger/>)
'Mathematically, it's expressed as the true positive rate of a condition sample divided by the product of the false positive rate of the population and the true positive rate of a condition.'

Then in your example, you state:

'Say you had a 60% chance of actually having the flu after a flu test'

Which potentially implies 'you have a 60% chance no matter what'. Did you mean if you are sick there's a 60% chance of a positive result? That would have been clearer. Later, you say: the overall population only has a 5% chance of having the flu.

Then, you say:

'(.6 * 0.05) (True Positive Rate of a Condition Sample) / (.6*0.05) + (.5*0.95) (False Positive Rate of a Population) '

Now, the denominator is not a product (as you stated earlier), but a sum of 2 values.

Also, you say 'but the test is false 50% of the time', but I think you mean, 'out of people who don't have the flu, 50% will have a positive result', which is a much clearer statement.

So generally, the way that section is worded caused me to think I understood less about Bayes' theorem than I did before I read it, but I breathed a sigh of relief after hopping over to wikipedia's 'drug test' example, which made perfect sense. Might be worth rewording that section.

Overall, nice sample of possible questions. Thanks!

^ | v • Reply • Share ›

Emu • 2 months ago

Great questions! Thanks for posting. So in question 5, precision is written as "a measure of the amount of positives your model claims compared to the number of positives in the training set of your data" but this sounds like the definition of recall. Instead I'd say precision is the amount of true positives compared to the number of positives your model says there is.

^ | v • Reply • Share ›



Roger Huang → Emu • 2 months ago

This is more accurate -- I've made the edit :)

^ | v • Reply • Share ›

(https://www.springboard.com/workshops/data-science-career-track?utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar)

ALSO ON SPRINGBOARD BLOG

[How to learn data science without a degree](#)

1 comment • 5 months ago

[Roger Huang \(<https://www.springboard.com/blog/author/roger/>\)](#)

AUTHOR

[Data Science Interview Questions: A curated list](#)



Get a data science job or your money back

[Click Here](#)

24 Exceptional Business Intelligence Tools

1 comment • 3 months ago

Roseanne Winn — I would love to see one addition to this otherwise great article on current BI offerings: a category for ...

[Subscribe](#)

[Add Disqus to your site](#)

[Add Disqus Add](#)

[Privacy](#)

11 Best Resources to Learn Typography Design Online

3 comments • 2 years ago

Nitin Tyagi — very awesome (:

1.1k
Shares

Millions of students are improving their skills by using our courses

[LEARN MORE](#)

(/workshops/)

Stay in the know!

I Want To Learn...

Enter your email

[GET UPDATES](#)

Workshops

Resources

Company

Data Science Career Track

Master data science skills, and get a job or your money back

([https://www.springboard.com/workshops/data-science-career-track?
utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar](https://www.springboard.com/workshops/data-science-career-track?utm_source=blog&utm_medium=dssidebar&utm_campaign=dsblogsidebar))

(<https://www.facebook.com/springboard/>)

AUTHOR

Roger Huang (<https://www.springboard.com/blog/author/roger/>)