Practice Interview Questions

# Advanced Topics in Data Science

* What are stop words?
* Can you explain tokenization and lemmatization?
* Can you explain what is a Bag-of-Words?
* What is the advantage of using TF-IDF instead of simple word counts?
* Can you explain how word2vec works?
* What is topic modeling?
* Can you explain how Latent Dirichlet Allocation works?
* What ML algorithms are most commonly used for text classification tasks?
* How would you explain what a Recommender System is to a non-technical person?
* What types of Recommender Systems do you know? Can you explain the differences between them?
* What is the cold start problem?
* Where does the term “deep” come in the definition of Deep Learning?
* What is a perceptron?
* How does backpropagation work?
* How does Stochastic Gradient Descent differ from regular Gradient Descent?
* Do you know any other optimization algorithms?
* What types of layer do you know in Deep Neural Networks?
* What types of activation functions do you know?
* Why do Deep Neural Networks train faster on a GPU?
* How does a convolution work?
* Is time series modeling a regression or a classification problem?
* What is the difference between an AR and an MA component in a time series?
* How does ARIMA forecasting work? Why is the I term important?
* How can you ensure that you don’t overfit when building a time series model? Can you use regular Cross-Validation methods?
* What methods do you know for working with time series data in pandas? *Open-ended*
* How can you cluster time series data?