## **Twitter Thread by Alexey Grigorev**





The toughest data science interview I ever had

I got bombarded for 45 minutes with theoretical questions:

- **■** Entropy
- **■** KL divergence, other divergences
- **■** Kolmogorov complexity
- **■** Jacobian and Hessian
- **■** Linear independence
- **■** Determinant

## **Continued** ■

- Eigenvalues and Eigenvectors
- SVD
- The norm of a vector
- Independent random variables
- Expectation and variance
- Central limit theorem

- Gradient descent and SGD
- Other optimization methods
- The dimension of gradient and hessian for a neural net with 1k params
- What is SVM
- Linear vs non-linear SVM
- Quadratic optimization

- What to do when a neural net overfits
- What is autoencoder
- How to train an RNN
- How decision trees work
- Random forest and GBM
- How to use random forest on data with 30k features
- Favorite ML algorithm tell about it in details

That was tough!