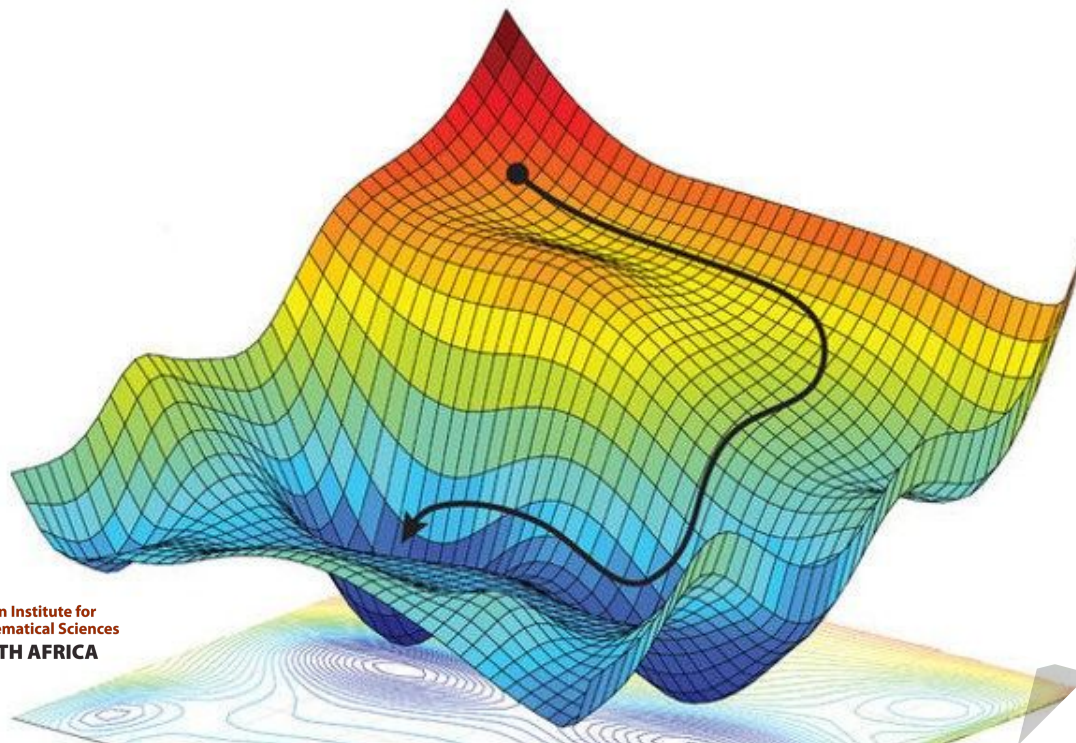


EASY-ML 2025

Closing remarks



Claire David

Resources

🔍 Search this book...

ABOUT THIS COURSE

Learning outcomes

Instructor & Schedule

JupyterHub for class

Evaluation

WEEK 1

1. Course Trailer
2. Warm up: Linear Regression
3. Classification algorithms
4. Decision Trees and Boosting
5. Review Week 1

WEEK 2

- 6. Neural Networks Part I ✓
- 7. Neural Networks Part II ✓
- 8. Towards Deep Learning Models ✓
- 9. Convolutional Neural Networks ✓
- 10. Review Week 2

Learn the math behind machine learning!

Lear

Lea

Lea

Lea

Lea

Exa

It is a

⚠ Some parts of this course website are still under construction 🛠 Thank you for your patience.

Derivative of the cost at the last layer

Looking at Equation (100), we will have:

$$\frac{\partial \text{Cost}}{\partial W^{(L)}} = \frac{1}{m} \sum_{i=1}^m \mathbf{a}^{(i, L-1)} \otimes [\boldsymbol{\delta}^{(i, L)}] \quad (109)$$

In terms of dimensions, the outer product creates a $n_{L-1} \times n_L$ matrix; this is what we want to get the correct dimensionality on the left hand side:

Note that the derivatives of the cost on the left hand side – shown in green – are the result of the summation over the m samples so there is no 'depth' anymore.

Error at the before-last level

at the before-last layer by

(110)

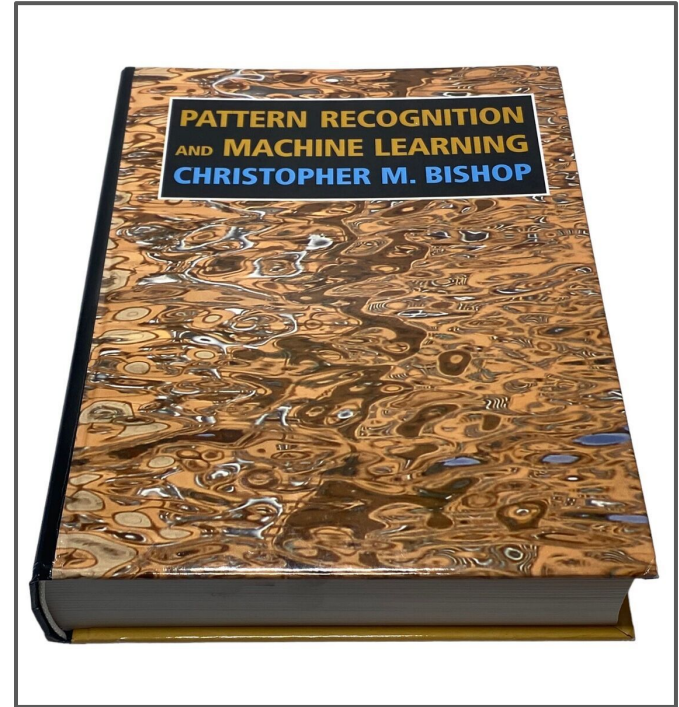
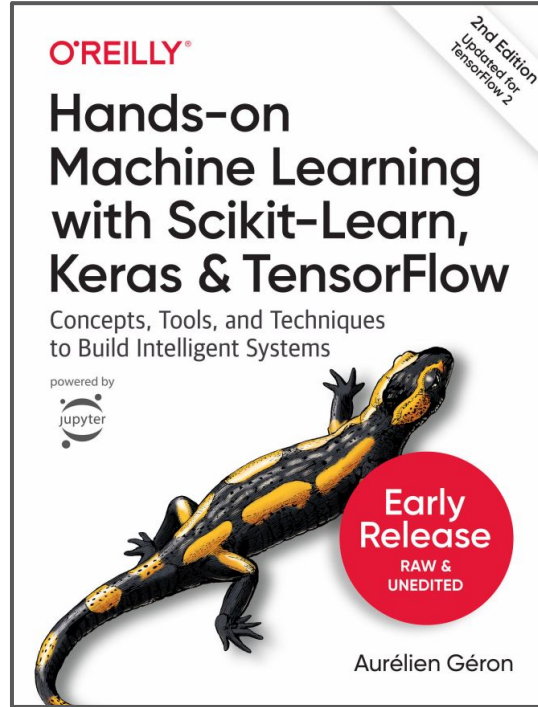
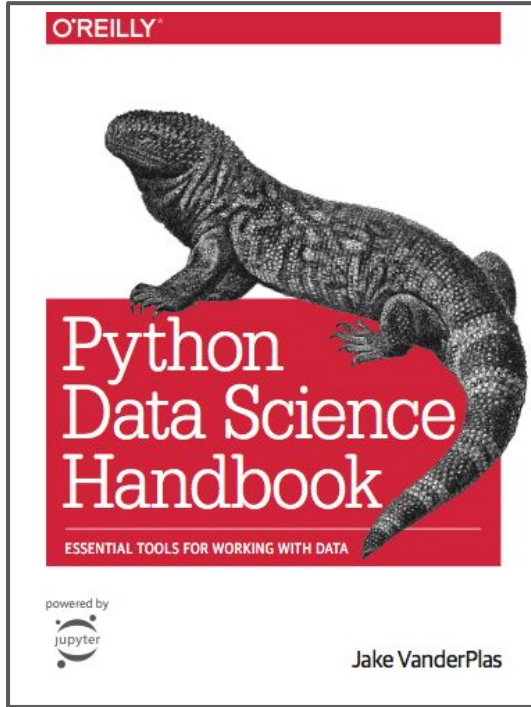
or of n_{L-1} elements,
elements.



n_L

Same url
by end of August

Books



All content



Notebooks:



Websites

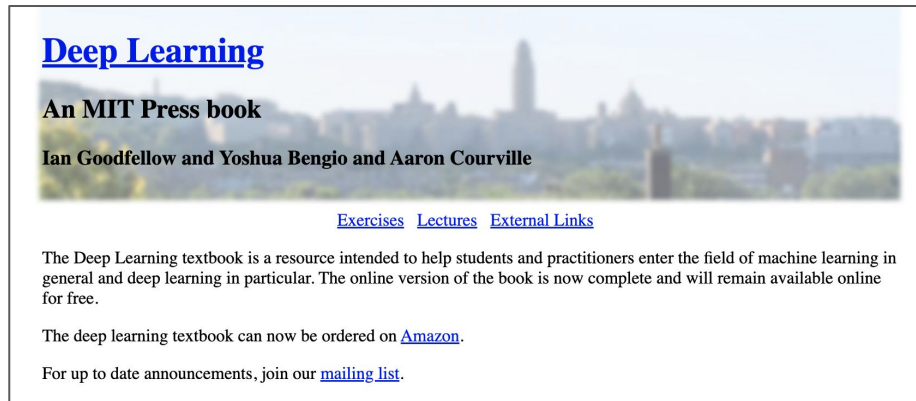


coursera

Machine Learning Specialization

A portrait of Andrew Ng, a leading expert in machine learning, smiling and standing in front of a desk with a lamp.

 **Stanford** | ONLINE



[Deep Learning](#)

An MIT Press book

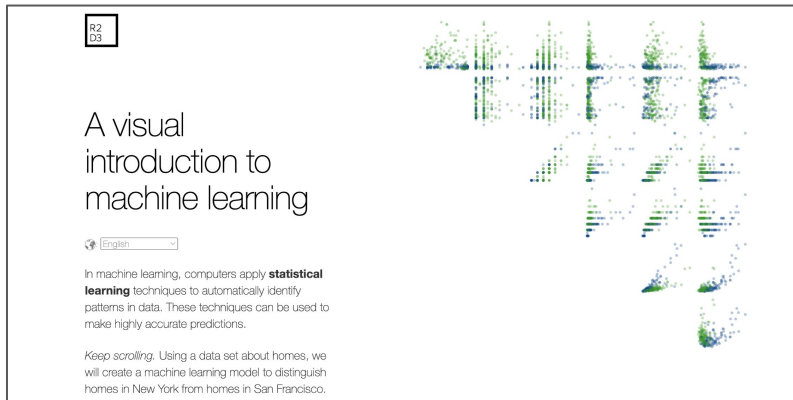
Ian Goodfellow and Yoshua Bengio and Aaron Courville


[Exercises](#) [Lectures](#) [External Links](#)

The Deep Learning textbook is a resource intended to help students and practitioners enter the field of machine learning in general and deep learning in particular. The online version of the book is now complete and will remain available online for free.

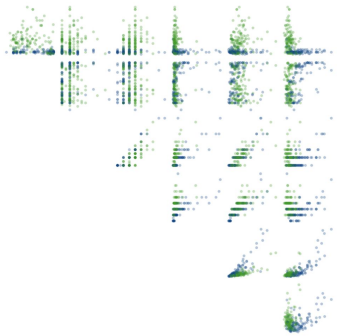
The deep learning textbook can now be ordered on [Amazon](#).


For up to date announcements, join our [mailing list](#).



 R2 D3

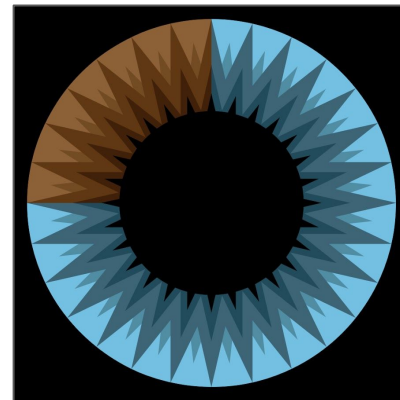
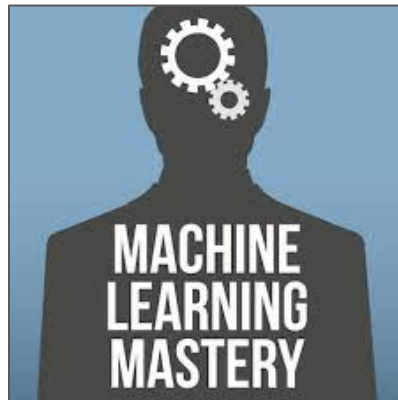
A visual introduction to machine learning

A complex data visualization featuring a grid of green and blue points, with a central cluster of points forming a shape reminiscent of a stylized 'M' or a network graph.

 English

In machine learning, computers apply **statistical learning** techniques to automatically identify patterns in data. These techniques can be used to make highly accurate predictions.

Keep scrolling. Using a data set about homes, we will create a machine learning model to distinguish homes in New York from homes in San Francisco.



How do I get that much energy?

It's not me.

It's you 🙄

Your dedication, respect and curiosity inspire me.

THANK YOU!



ASANTE

Last thing!

Group picture!

At the next break. Now over to you, Charles!