



Spring 2025

[ WEEK 0 ]

# **Introduction to machine learning**

READINGS

Neural Networks  
(3Blue1Brown, 2024)



Intro FellowshipSpring 2025

## **Neural Networks**

*3Blue1Brown (2024)*

[youtube.com/playlist?list=PLZHQObOWTQDNU6R1\\_6700Dx\\_ZCJB-3pi&feature=shared](https://youtube.com/playlist?list=PLZHQObOWTQDNU6R1_6700Dx_ZCJB-3pi&feature=shared)

**Notes:**

## Further Reading

### **A short introduction to machine learning**

*Ngo (2021)*

[www.alignmentforum.org/posts/qE73pqxAZmeACsAdF/a-short-introduction-to-machine-learning](http://www.alignmentforum.org/posts/qE73pqxAZmeACsAdF/a-short-introduction-to-machine-learning)

### **Machine Learning for Humans, Part 2.1: Supervised Learning**

*Maini and Sabri (2017)*

[medium.com/@v\\_maini/supervised-learning-740383a2feab](https://medium.com/@v_maini/supervised-learning-740383a2feab)

### **What is self-supervised learning?**

*CodeBasics (2021)*

[youtu.be/sJzuNAisXHA](https://youtu.be/sJzuNAisXHA)

### **Introduction to reinforcement learning**

*von Hasselt (2021)*

[www.youtube.com/watch?v=TCCjZe0y4Qc&t=2m0s](https://www.youtube.com/watch?v=TCCjZe0y4Qc&t=2m0s)

### **The spelled-out intro to neural networks and backpropagation: building micrograd**

*Karpathy (2022)*

[youtu.be/VMj-3S1tku0](https://youtu.be/VMj-3S1tku0)

### **Transformers from scratch**

*Rohrer (2021)*

[e2eml.school/transformers.html](https://e2eml.school/transformers.html)

### **Machine learning for humans**

*Maini and Sabri (2017)*

[medium.com/machine-learning-for-humans/why-machine-learning-matters-6164faf1df12](https://medium.com/machine-learning-for-humans/why-machine-learning-matters-6164faf1df12)

### **Machine learning glossary**

*Google (2017)*

[developers.google.com/machine-learning/glossary](https://developers.google.com/machine-learning/glossary)

### **Spinning up deep RL: part 1 and part 2**

*OpenAI (2018)*

[spinningup.openai.com/en/latest/spinningup/rl\\_intro.html](https://spinningup.openai.com/en/latest/spinningup/rl_intro.html)

### **A (long) peek into reinforcement learning**

*Weng (2018)*

[lilianweng.github.io/posts/2018-02-19-rl-overview/](https://lilianweng.github.io/posts/2018-02-19-rl-overview/)