Neural Networks Hello World + Assignments 2, 3 (Neural Networks Implementation and Application Tutorial)

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Overview

- Assignment 2
- Gradient
- PyTorch's Autograd
- NN Hello World
- Assignment 3

Assignment 2

TODO



• What is it?

- What is it?
- How do we denote it?

Gradient 👺

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- VVIIat is it:
- How do we denote it? $\nabla f(p) = \left[\frac{\delta f}{\delta x_1}(p), \dots, \frac{\delta f}{\delta x_k}(p)\right]$
- Why is it important?



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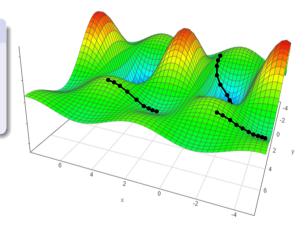


Figure 1: Function parameter landscape from [1]

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Figure 2: Function parameter landscape from [2]

Autograd & PyTorch

TODO

Assignment 3

• Any questions?

Resources

- [1] Optimization & landscapes offconvex.org/2018/11/07/optimization-beyond-landscape/
- [2] Optimization Introduction by Scipy scipy-lectures.org/advanced/mathematical_optimization/