Deep Learning

Bùi Văn Hiệu
0933189292
hieubv10@fe.edu.vn

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- Neural Networks and Deep Learning
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  - Basic Neural Network
  - Shallow Neural Networks
  - Deep Neural Networks
- Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization
  - Practical Aspects of Deep Learning
  - Optimization Algorithms
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- Structuring your Machine Learning project
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  - Convolutional Neural Networks
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  - Sequence Models & Attention Mechanism
  - Transformer Network

Grading Policy

- Attendance: 10%
- Labs Work: 30%
- Quiz: 20%
- Exam (Project presentation): 40%

References

- Stanford University. *CS230: Deep Learning*. Instructors: Andrew Ng and Kian Katanforoosh.

- Zhang, Aston, et al. Dive into deep learning. Cambridge University Press, 2023.