Final Exam

Machine Learning Course
Telkom University

What You Have Learnt

Fundamental

- Machine Learning Concept
- Basic Model - Linear, Tree, SVM, XGBoost, Neural Nets
- Deep Learning: Neural Nets, **Convolution Nets** and RNNs

Conceptual

- Ensemble Learning
- Data Visualization
- Exploratory Data Analysis

Practical

- Tools: Scikit-learn and Orange
- Libraries: Data Visualization, Pandas, Numpy, PyTorch, Tensorflow

Final Examination

Team Up to 3 Students
UAS Period: 25 June - 9 July

Evaluation Period:
9 July - 13 July

Implement Common Convolution Neural Nets Model

- **Reproduce ResNet**
  - Make Technical Report - Slides PDF
  - Paper Source: https://arxiv.org/pdf/1512.03385.pdf
    - Read and Summarize in Slides then Put on Git
  - Make Python Codes for ResNet
    - PyTorch or Tensorflow, Train on Collab, Put PYNB on Your Git
    - Dataset: MNIST, CIFAR10, IMAGENET, etc
    - Classification Task
- **Reproduce DenseNet**
  - Make Technical Report - Slides PDF
  - Paper Source: https://arxiv.org/pdf/1608.06993.pdf
    - Read and Summarize in Slides then Put on Git
  - Make Python Codes for ResNet
    - PyTorch or Tensorflow, Train on Collab, Put PYNB on Your Git
    - Dataset: MNIST, CIFAR10, IMAGENET, etc
    - Classification Task

Lifecycle

- Data Acquisition/Collection
- Data Preprocessing
- Data Validate
- Neural Network Models
- Model Serving