

Praktikum 1

Local Repository/prak 1 – RapidMiner Studio Free 9.3.001 © LABSI-18-PC

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model

Find data, operators...etc All Studio

Repository

- Import Data
- Local Repository
- processes (LABSI-18-PC)
 - Data_Testing (LABSI-18-PC)
 - Data_Training (LABSI-18-PC)
 - DataCuaca_Testing (LABSI-18-PC)
 - DataCuaca_Training (LABSI-18-PC)
 - prak 1 (LABSI-18-PC)
 - prak 2 (LABSI-18-PC)
 - Tugas 1 (LABSI-18-PC)

Operators

performance

Predictive (7)

- Performance (Classification)
- Performance (Binomial)
- Performance (Regression)
- Performance (Costs)
- Performance (Ranking)

No results were found.

Process

100%

Process

Retrieve DataCuaca... Nominal to Numerical Perceptron Apply Model

Retrieve DataCuaca... Nominal to Numerical

Leverage the Wisdom of Crowds to get operator recommendations based on your process design!

Activate Wisdom of Crowds

Parameters

Process

logverbosity init

logfile

Show advanced parameters

Change compatibility (9.3.001)

Help

Process

RapidMiner Studio Core

Synopsis

The root operator which is the outer most operator of every process.

Description

Local Repository/prak 1 – RapidMiner Studio Free 9.3.001 © LABSI-18-PC

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model

Find data, operators...etc All Studio

ExampleSet (/Local Repository/DataCuaca_Testing)

ExampleSet (/Local Repository/DataCuaca_Training)

ExampleSet (/Local Repository/Data_Training)

ExampleSet (/Local Repository/DataCuaca_Training)

Result History

ExampleSet (Apply Model)

ExampleSet (/Local Repository/Data_Testing)

Open in Turbo Prep Auto Model

Filter (7 / 7 examples): all

Row No.	prediction(B...	confidence(...	confidence(...	Cuaca = Cer...	Cuaca = Me...	Cuaca = Huj...	Berangin = T...	Berangin = YA	Suhu	Kelembaban...
1	TIDAK	1.000	0.000	1	0	0	1	0	75	65
2	TIDAK	1.000	0.000	1	0	0	0	1	80	68
3	TIDAK	1.000	0.000	1	0	0	0	1	83	87
4	TIDAK	1	0	0	1	0	1	0	70	96
5	TIDAK	1.000	0.000	0	1	0	1	0	68	81
6	TIDAK	1.000	0.000	0	0	1	0	1	65	75
7	TIDAK	1	0	0	0	1	0	1	64	85

ExampleSet (7 examples, 3 special attributes, 7 regular attributes)

Repository

- Training F...
- Samples
- Commun...
- DB (Legac...
- Local Rep...
- Conne...
- data (L...
- proces...
- Data_...
- Data_...
- DataC...
- DataC...
- prak 1
- prak 2
- Tugas

Praktikum 2

The screenshot shows the RapidMiner Studio interface. The **Repository** panel on the left contains a folder named 'processes (LABSI-18-PC)' with several files including 'Data_Testing', 'Data_Training', 'DataCuaca_Testing', 'DataCuaca_Training', 'prak 1', 'prak 2', and 'Tugas 1'. The **Process** panel in the center shows a workflow: 'Retrieve DataCuaca_Training' (orange box) is connected to 'Cross Validation' (yellow box). The 'Cross Validation' operator has multiple output ports labeled 'mod', 'exa', 'tes', 'per', and 'per'. The **Parameters** panel on the right shows the 'Retrieve DataCuaca_Training (Retrieve)' operator with the 'repository entry' set to 'yDataCuaca_Training'. The **Help** panel shows the 'Retrieve' operator's synopsis: 'This Operator can access stored information in the Repository and load them into the Process.'

The screenshot shows the RapidMiner Studio interface with a more complex process design. The **Process** panel is divided into 'Training' and 'Testing' sections. In the 'Training' section, 'Nominal to Numerical' (pink box) is connected to 'Neural Net' (green box). In the 'Testing' section, 'Nominal to Numerical' (pink box) is connected to 'Apply Model' (green box), which is then connected to 'Performance' (orange box). The **Parameters** panel on the right shows the 'Performance (Performance (Classification))' operator with 'main criterion' set to 'first'. The 'accuracy' checkbox is checked. The **Help** panel shows the 'Performance (Classification)' operator's synopsis: 'This operator is used for statistical performance evaluation of classification tasks. This operator delivers a list of performance statistics for each data set in the process.'

MODUL 13 – PRAKTIKUM DWDM – L200170019 – A

Windows Taskbar: //Local Repository/prak 2* - RapidMiner Studio Free 9.3.001 @ LABSI-18-PC

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model

Find data, operators, etc. All Studio

ExampleSet (/Local Repository/DataCuaca_Testing) ExampleSet (/Local Repository/DataCuaca_Training)

ExampleSet (/Local Repository/Data_Training) ExampleSet (/Local Repository/DataCuaca_Training)

Result History PerformanceVector (Performance) ImprovedNeuralNet (Neural Net) ExampleSet (/Local Repository/Data_Testing)

Criterion accuracy

Performance

Description

Annotations

Table View Plot View

accuracy: 50.00% +/- 47.14% (micro average: 57.14%)

	true TIDAK	true YA	class precision
pred. TIDAK	2	3	40.00%
pred. YA	3	6	66.67%
class recall	40.00%	66.67%	

Windows Taskbar: 9:26 AM 11/27/2019

Windows Taskbar: //Local Repository/prak 2* - RapidMiner Studio Free 9.3.001 @ LABSI-18-PC

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model

Find data, operators, etc. All Studio

ExampleSet (/Local Repository/DataCuaca_Testing) ExampleSet (/Local Repository/DataCuaca_Training)

ExampleSet (/Local Repository/Data_Training) ExampleSet (/Local Repository/DataCuaca_Training)

Result History PerformanceVector (Performance) ImprovedNeuralNet (Neural Net) ExampleSet (/Local Repository/Data_Testing)

Neural Net

Description

Annotations

Input Hidden 1 Output

Windows Taskbar: 9:27 AM 11/27/2019

MODUL 13 – PRAKTIKUM DWDM – L200170019 – A

Windows taskbar: //Local Repository/prak 2* - RapidMiner Studio Free 9.3.001 @ LABSI-18-PC

Menu: File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model

Find data, operators, etc. All Studio

ExampleSet (/Local Repository/DataCuaca_Testing) ExampleSet (/Local Repository/DataCuaca_Training) ExampleSet (/Local Repository/DataCuaca_Training) ExampleSet (/Local Repository/DataCuaca_Training) ExampleSet (/Local Repository/DataCuaca_Testing)

Result History PerformanceVector (Performance) ImprovedNeuralNet (Neural Net)

ImprovedNeuralNet

Neural Net

Description

Annotations

Hidden 1

Node 1 (Sigmoid)

Cuaca = Cerah: -0.646
Cuaca = Mendung: 0.985
Cuaca = Hujan: -0.127
Berangin = TIDAK: 0.491
Berangin = YA: -0.496
Suhu: -0.277
Kelembaban_udara: -0.596
Bias: -0.213

Node 2 (Sigmoid)

Cuaca = Cerah: -0.371
Cuaca = Mendung: 0.652
Cuaca = Hujan: -0.118
Berangin = TIDAK: 0.263
Berangin = YA: -0.292
Suhu: -0.178
Kelembaban_udara: -0.440
Bias: -0.114

Windows taskbar: 9:27 AM 11/27/2019

Windows taskbar: //Local Repository/prak 2* - RapidMiner Studio Free 9.3.001 @ LABSI-18-PC

Menu: File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model

Find data, operators, etc. All Studio

ExampleSet (/Local Repository/DataCuaca_Testing) ExampleSet (/Local Repository/DataCuaca_Training) ExampleSet (/Local Repository/DataCuaca_Training) ExampleSet (/Local Repository/DataCuaca_Training) ExampleSet (/Local Repository/DataCuaca_Testing)

Result History PerformanceVector (Performance) ImprovedNeuralNet (Neural Net)

ImprovedNeuralNet

Neural Net

Description

Annotations

Node 3 (Sigmoid)

Cuaca = Cerah: -0.758
Cuaca = Mendung: 1.156
Cuaca = Hujan: -0.090
Berangin = TIDAK: 0.579
Berangin = YA: -0.633
Suhu: -0.310
Kelembaban_udara: -0.642
Bias: -0.197

Node 4 (Sigmoid)

Cuaca = Cerah: -1.035
Cuaca = Mendung: 1.411
Cuaca = Hujan: -0.099
Berangin = TIDAK: 0.826
Berangin = YA: -0.806
Suhu: -0.492
Kelembaban_udara: -0.708
Bias: -0.204

Node 5 (Sigmoid)

Cuaca = Cerah: -0.677
Cuaca = Mendung: 1.023
Cuaca = Hujan: -0.154
Berangin = TIDAK: 0.520

Windows taskbar: 9:27 AM 11/27/2019

MODUL 13 – PRAKTIKUM DWDM – L200170019 – A

Local Repository/prak 2" – RapidMiner Studio Free 9.3.001 © LABSI-18-PC

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model Find data, operators, etc. All Studio

ExampleSet (/Local Repository/DataCuaca_Testing) ExampleSet (/Local Repository/DataCuaca_Training) ExampleSet (/Local Repository/DataCuaca_Training) ExampleSet (/Local Repository/DataCuaca_Training) ExampleSet (/Local Repository/DataCuaca_Testing)

Result History PerformanceVector (Performance) ImprovedNeuralNet (Neural Net)

Neural Net

Description

Annotations

Node 5 (Sigmoid)

Cuaca = Cerah: -0.677
Cuaca = Mendung: 1.023
Cuaca = Hujan: -0.154
Berangin = TIDAK: 0.520
Berangin = YA: -0.514
Suhu: -0.291
Kelembaban_udara: -0.628
Bias: -0.217

Node 6 (Sigmoid)

Cuaca = Cerah: -0.647
Cuaca = Mendung: 1.038
Cuaca = Hujan: -0.086
Berangin = TIDAK: 0.550
Berangin = YA: -0.495
Suhu: -0.290
Kelembaban_udara: -0.564
Bias: -0.236

Output

=====
Class 'TIDAK' (Sigmoid)

Repository

Training F
Samples
Commun
DB (Legac
Local Rep
Conne
data (L
proces
Data_
Data_
DataC
DataC
prak 1
prak 2
Tugas

9:28 AM
11/27/2019

Local Repository/prak 2" – RapidMiner Studio Free 9.3.001 © LABSI-18-PC

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model Find data, operators, etc. All Studio

ExampleSet (/Local Repository/DataCuaca_Testing) ExampleSet (/Local Repository/DataCuaca_Training) ExampleSet (/Local Repository/DataCuaca_Training) ExampleSet (/Local Repository/DataCuaca_Training) ExampleSet (/Local Repository/DataCuaca_Testing)

Result History PerformanceVector (Performance) ImprovedNeuralNet (Neural Net)

Neural Net

Description

Annotations

Berangin = YA: -0.495
Suhu: -0.290
Kelembaban_udara: -0.564
Bias: -0.236

Output

=====
Class 'TIDAK' (Sigmoid)

Node 1: -0.780
Node 2: -0.384
Node 3: -0.957
Node 4: -1.363
Node 5: -0.816
Node 6: -0.804
Threshold: 1.505

Class 'YA' (Sigmoid)

Node 1: 0.770
Node 2: 0.326
Node 3: 0.976
Node 4: 1.345
Node 5: 0.856
Node 6: 0.810
Threshold: -1.495

Repository

Training F
Samples
Commun
DB (Legac
Local Rep
Conne
data (L
proces
Data_
Data_
DataC
DataC
prak 1
prak 2
Tugas

9:28 AM
11/27/2019

Tugas

Repository

Process

Parameters

Retrieve Data_Testing (Retrieve)

repository entry

Data_Testing

Show advanced parameters

Help

Retrieve

RapidMiner Studio Core

Tags: Load, Import, Read, Datasets, Examples, Example Set, Table, Repository, Data Access

Synopsis

This Operator can access stored information in the Repository and load them into the Process.

Leverage the Wisdom of Crowds to get operator recommendations based on your process design!

Activate Wisdom of Crowds

Result History

ExampleSet (Apply Model)

ExampleSet (//Local Repository/DataCuaca_Testing)

ExampleSet (//Local Repository/DataCuaca_Training)

ExampleSet (//Local Repository/Data_Testing)

ExampleSet (//Local Repository/Data_Training)

Open in

Turbo Prep

Auto Model

Filter (10 / 10 examples): all

Row No.	prediction(L...	confidence(L...	confidence(L...	Jurusan_S...	Jurusan_S...	Jurusan_S...	Gender = W...	Gender = PR...	Asal_Sekola...	Asal_Sekola...	Asisten = TL...
1	TEPAT	0.462	0.538	1	0	0	1	0	1	0	1
2	TEPAT	0.385	0.615	0	1	0	0	1	1	0	0
3	TERLAMBAT	0.536	0.464	1	0	0	0	1	1	0	1
4	TERLAMBAT	0.579	0.421	0	0	1	0	1	0	1	1
5	TEPAT	0.465	0.535	1	0	0	1	0	1	0	1
6	TEPAT	0.325	0.675	0	1	0	1	0	0	1	0
7	TEPAT	0.458	0.542	0	1	0	0	1	1	0	1
8	TEPAT	0.455	0.545	0	1	0	0	1	1	0	1
9	TERLAMBAT	0.576	0.424	0	0	1	0	1	0	1	1
10	TEPAT	0.462	0.538	1	0	0	1	0	1	0	1

ExampleSet (10 examples, 3 special attributes, 10 regular attributes)

Asisten = YA	Rerata_Sek...
0	18
1	19
0	19
0	17
0	17
1	18
0	18
0	19
0	18
0	18

3. Perform Percept

PerformanceVector (Performance)

Table View Plot View

accuracy: 40.00% +/- 31.62% (micro average: 40.00%)

	true TERLAMBAT	true TEPAT	class precision
pred. TERLAMBAT	4	9	30.77%
pred. TEPAT	3	4	57.14%
class recall	57.14%	30.77%	

4. Neural Net

ExampleSet (Apply Model)

Open in Turbo Prep Auto Model

Filter (10 / 10 examples): all

Row No.	prediction(L...	confidence(L...	confidence(...	Jurusan_S...	Jurusan_S...	Jurusan_S...	Gender = W...	Gender = PR...	Asal_Sekola...	Asal_Sekola...	Asisten = TL...
1	TEPAT	0.331	0.669	1	0	0	1	0	1	0	1
2	TEPAT	0.027	0.973	0	1	0	0	1	1	0	0
3	TERLAMBAT	0.588	0.412	1	0	0	0	1	1	0	1
4	TERLAMBAT	0.679	0.321	0	0	1	0	1	0	1	1
5	TEPAT	0.399	0.601	1	0	0	1	0	1	0	1
6	TEPAT	0.032	0.968	0	1	0	1	0	0	1	0
7	TEPAT	0.399	0.601	0	1	0	0	1	1	0	1
8	TEPAT	0.325	0.675	0	1	0	0	1	1	0	1
9	TERLAMBAT	0.655	0.345	0	0	1	0	1	0	1	1
10	TEPAT	0.331	0.669	1	0	0	1	0	1	0	1

ExampleSet (10 examples, 3 special attributes, 10 regular attributes)

Asisten = YA	Rerata_Sek...
0	18
1	19
0	19
0	17
0	17
1	18
0	18
0	19
0	18
0	18

5. Performance Vector

Result History: PerformanceVector (Performance) | ImprovedNeuralNet (Neural Net) | ExampleSet (/Local Repository/DataCuaca_Testing)

Views: Design | Results | Turbo Prep | Auto Model

Criterion: accuracy

Table View | Plot View

accuracy: 60.00% +/- 31.62% (micro average: 60.00%)

	true TERLAMBAT	true TEPAT	class precision
pred. TERLAMBAT	3	4	42.86%
pred. TEPAT	4	9	69.23%
class recall	42.86%	69.23%	

Windows taskbar: 9:33 AM 11/27/2019

6.

Repository: Import Data | processes (LABSI-18) | Data_Testing (LABSI-18) | Data_Training (LABSI-18) | DataCuaca_Testing (LABSI-18) | DataCuaca_Training (LABSI-18) | prak 1 (LABSI-18) | prak 2 (LABSI-18) | Tugas 1 (LABSI-18)

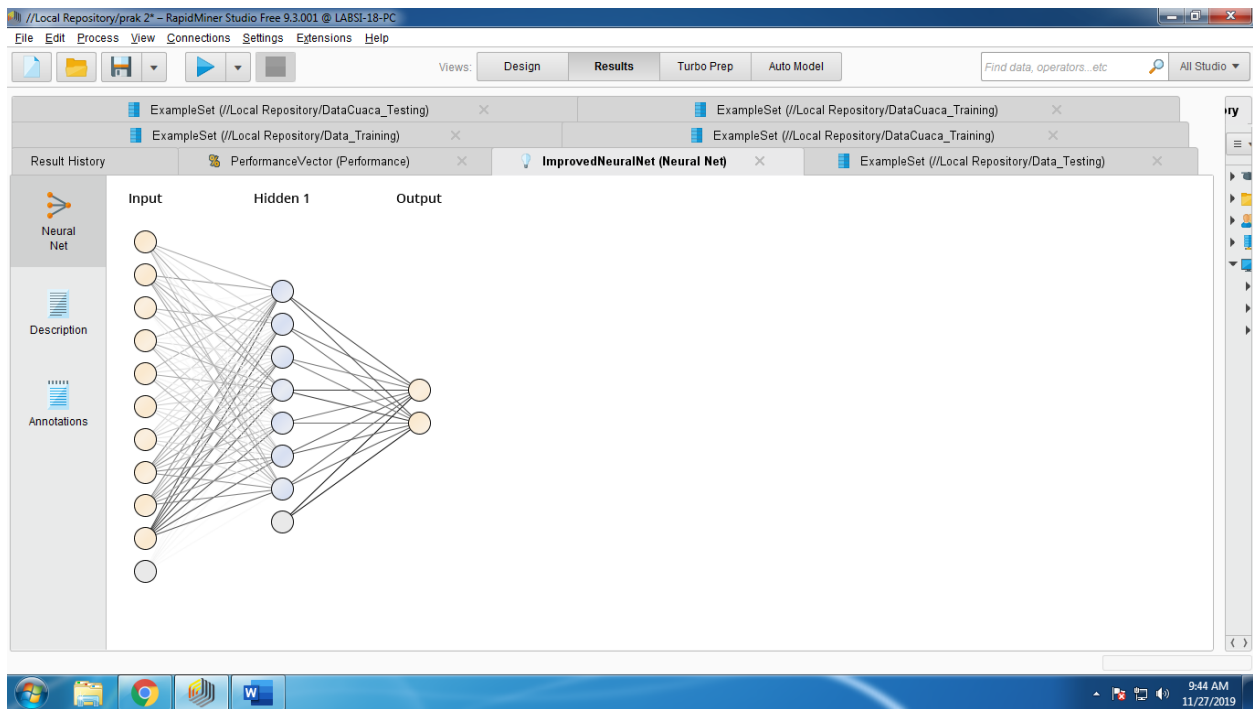
Process: Retrieve Data_Training | Cross Validation

Parameters: Retrieve Data_Training (Retrieve) | repository entry: Data_Training

Help: Retrieve | RapidMiner Studio Core | Tags: Load, Import, Read, Datasets, Examples, Example Set, Table, Repository, Data Access | Synopsis: This Operator can access stored information in the Repository and load them into the Process.

Windows taskbar: 9:44 AM 11/27/2019

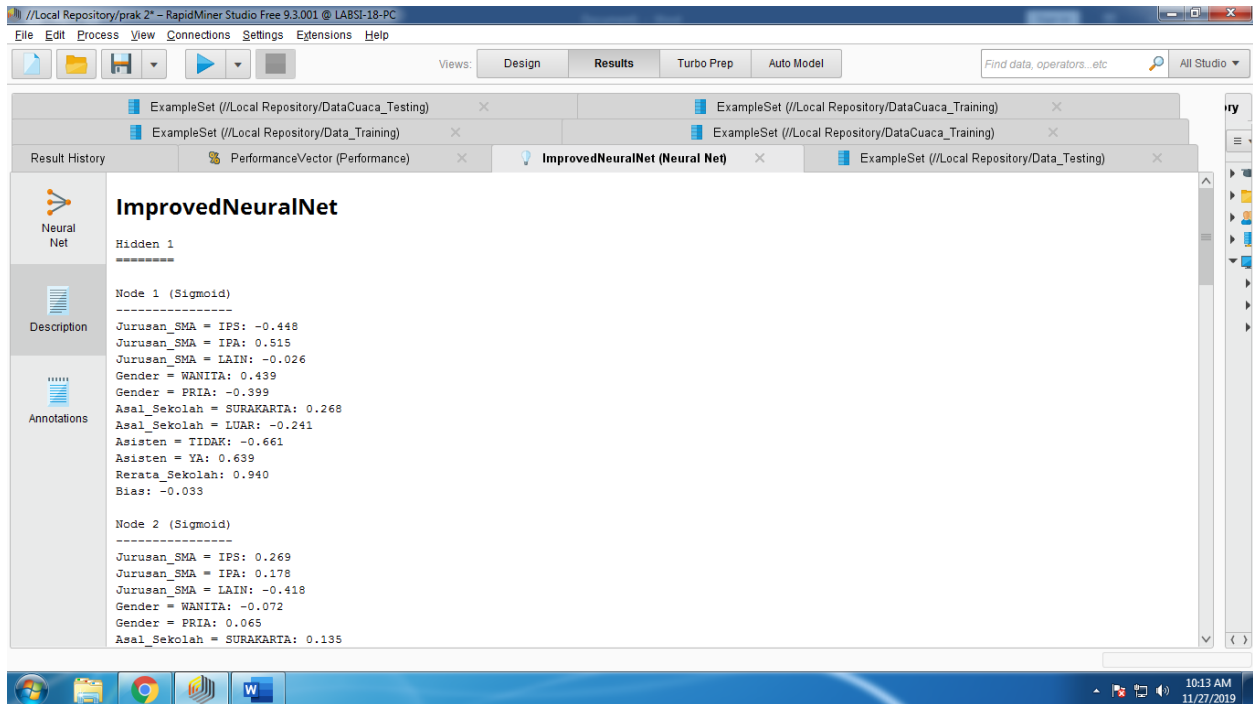
MODUL 13 – PRAKTIKUM DWDM – L200170019 – A



7.

- 1) Input Layer = 10 node
- 2) Hidden Layer = 7 node
- 3) Output = 2 node

8.



MODUL 13 – PRAKTIKUM DWDM – L200170019 – A

//Local Repository/prak 2* - RapidMiner Studio Free 9.3.001 @ LABSI-18-PC

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model Find data, operators...etc All Studio

ExampleSet (/Local Repository/DataCuaca_Testing) ExampleSet (/Local Repository/DataCuaca_Training)

ExampleSet (/Local Repository/Data_Training) ExampleSet (/Local Repository/DataCuaca_Training)

Result History PerformanceVector (Performance) ImprovedNeuralNet (Neural Net) ExampleSet (/Local Repository/Data_Testing)

Neural Net

Description

Annotations

Node 2 (Sigmoid)

Jurusan_SMA = IPS: 0.269
Jurusan_SMA = IPA: 0.178
Jurusan_SMA = LAIN: -0.418
Gender = WANITA: -0.072
Gender = PRIA: 0.065
Asal_Sekolah = SURAKARTA: 0.135
Asal_Sekolah = LUAR: -0.166
Asisten = TIDAK: -0.420
Asisten = YA: 0.379
Rerata_Sekolah: 1.007
Bias: 0.025

Node 3 (Sigmoid)

Jurusan_SMA = IPS: -0.085
Jurusan_SMA = IPA: 0.282
Jurusan_SMA = LAIN: -0.208
Gender = WANITA: 0.195
Gender = PRIA: -0.157
Asal_Sekolah = SURAKARTA: 0.188
Asal_Sekolah = LUAR: -0.158
Asisten = TIDAK: -0.492
Asisten = YA: 0.477
Rerata_Sekolah: 0.863
Bias: -0.060

10:13 AM
11/27/2019

//Local Repository/prak 2* - RapidMiner Studio Free 9.3.001 @ LABSI-18-PC

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model Find data, operators...etc All Studio

ExampleSet (/Local Repository/DataCuaca_Testing) ExampleSet (/Local Repository/DataCuaca_Training)

ExampleSet (/Local Repository/Data_Training) ExampleSet (/Local Repository/DataCuaca_Training)

Result History PerformanceVector (Performance) ImprovedNeuralNet (Neural Net) ExampleSet (/Local Repository/Data_Testing)

Neural Net

Description

Annotations

Node 4 (Sigmoid)

Jurusan_SMA = IPS: -0.486
Jurusan_SMA = IPA: 0.540
Jurusan_SMA = LAIN: -0.004
Gender = WANITA: 0.451
Gender = PRIA: -0.434
Asal_Sekolah = SURAKARTA: 0.251
Asal_Sekolah = LUAR: -0.282
Asisten = TIDAK: -0.599
Asisten = YA: 0.644
Rerata_Sekolah: 1.009
Bias: -0.055

Node 5 (Sigmoid)

Jurusan_SMA = IPS: 0.079
Jurusan_SMA = IPA: 0.202
Jurusan_SMA = LAIN: -0.284
Gender = WANITA: 0.085
Gender = PRIA: -0.068
Asal_Sekolah = SURAKARTA: 0.150
Asal_Sekolah = LUAR: -0.122
Asisten = TIDAK: -0.410
Asisten = YA: 0.448
Rerata_Sekolah: 0.951
Bias: 0.041

10:13 AM
11/27/2019

MODUL 13 – PRAKTIKUM DWDM – L200170019 – A

Windows taskbar: //Local Repository/prak 2" – RapidMiner Studio Free 9.3.001 @ LABSI-18-PC

Views: Design Results Turbo Prep Auto Model

Find data, operators...etc

ExampleSet (/Local Repository/DataCuaca_Testing) ExampleSet (/Local Repository/DataCuaca_Training)

Result History PerformanceVector (Performance) ImprovedNeuralNet (Neural Net) ExampleSet (/Local Repository/Data_Testing)

Neural Net

Description

Annotations

Node 6 (Sigmoid)

Jurusan_SMA = IPS: -0.173
Jurusan_SMA = IPA: 0.382
Jurusan_SMA = LAIN: -0.133
Gender = WANITA: 0.248
Gender = PRIA: -0.236
Asal_Sekolah = SURAKARTA: 0.201
Asal_Sekolah = LUAR: -0.222
Asisten = TIDAK: -0.587
Asisten = YA: 0.549
Rerata_Sekolah: 0.962
Bias: 0.023

Node 7 (Sigmoid)

Jurusan_SMA = IPS: -0.397
Jurusan_SMA = IPA: 0.486
Jurusan_SMA = LAIN: 0.023
Gender = WANITA: 0.411
Gender = PRIA: -0.430
Asal_Sekolah = SURAKARTA: 0.187
Asal_Sekolah = LUAR: -0.217
Asisten = TIDAK: -0.577
Asisten = YA: 0.646
Rerata_Sekolah: 0.878
Bias: -0.036

Windows taskbar: 10:14 AM 11/27/2019

Windows taskbar: //Local Repository/prak 2" – RapidMiner Studio Free 9.3.001 @ LABSI-18-PC

Views: Design Results Turbo Prep Auto Model

Find data, operators...etc

ExampleSet (/Local Repository/DataCuaca_Testing) ExampleSet (/Local Repository/DataCuaca_Training)

Result History PerformanceVector (Performance) ImprovedNeuralNet (Neural Net) ExampleSet (/Local Repository/Data_Testing)

Neural Net

Description

Annotations

Rerata_Sekolah: 0.878
Bias: -0.036

Output

=====
Class 'TERLAMBAT' (Sigmoid)

Node 1: -0.961
Node 2: -0.814
Node 3: -0.681
Node 4: -0.983
Node 5: -0.718
Node 6: -0.864
Node 7: -0.862
Threshold: 1.265

Class 'TEPAT' (Sigmoid)

Node 1: 0.956
Node 2: 0.762
Node 3: 0.705
Node 4: 0.995
Node 5: 0.742
Node 6: 0.844
Node 7: 0.861
Threshold: -1.257

Windows taskbar: 10:14 AM 11/27/2019

9. Kesimpulanya

Akurasi Neural lebih besar dari perceptron