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Group - Keyboard Warriors
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Document where we picked out a group name and assigned project roles and responsibilities to each team member.

Roles and Responsibilities

Team Name:
Keyboard Warriors ☆

Honorable mentions:
5 == 5
Hello, world

Members:
JT
RIVER
CAMERON
NOAH
NICK

General Roles:
Productivity Manager + help w/ SRS
Project Manager + Documentation + Scheduling Meetings
Presentation
Testing
Tree Architect + help w/ SDS

I/O:
`read_from_file(input_file_name)`
`write_to_file(output_file_name)`

Preprocessing:
`denoise(ts)`
`impute_missing_data(ts)`
`impute_outliers(ts)`
`longest_continuous_run(ts)`
`clip(ts, starting_date, final_date)`
`assign_time(ts, start, increment)`

difference(ts)
scaling(ts)
standardize(ts)
logarithm(ts)
cubic_root(ts)
split_data(ts, perc_training, perc_valid, perc_test)

design_matrix(ts, input_index, output_index)
design_matrix(ts, mi, ti, mo, to)

ts2db(input_filename, perc_training, perc_valid, perc_test, input_index, output_index, output_file_name)– this function combines reading a file, splitting the data, converting to database, and producing the training databases.

PLOTTING FUNCTIONS

plot(ts)
histogram(ts)
box_plot(ts)
normality_test(ts)
mse(y_forecast, y_test)
mape(y_forecast, y_test)
smape(y_forecast, y_test)

Modeling and Forecasting:

mlp_model(input_dimension, output_dimension [, layers]) – defines an ANN Multi-Layer Perceptron model. You may use the same defaults as proposed by sklearn.

mlp.fit(x_train, y_train) – trains the mlp model.

mlp.forecast(x) – produces a forecast for the time series's current state, x.

Trees:

Create new tree - create_tree()
Add operations to tree (add node to tree) - tree.add_node()
Replace operation within tree (replace node) - tree.replace_node()
Replicate subtree - copy_subtree()
Replicate tree path - copy_path()
Add subtree to node - add_subtree()

save/load tree - save_tree() / loat_tree()
save/load pipeline (made design decision to not include since a pipeline can be considered a tree with only one path)
Execute tree - tree.execute_tree()
Execute pipeline - tree.execute_path()