

# Package ‘AutoNN’

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**Type** Package

**Title** Automatic Neural Network Modeling for Time Series Forecasting

**Version** 0.1.0

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**Description** Provides optimal combinations of input nodes and hidden neurons for fitting feedforward single-layer artificial neural networks in time series forecasting. Models are evaluated using root mean square error, mean absolute percentage error, and mean absolute error measures.

**License** GPL-3

**Encoding** UTF-8

**Imports** forecast, MLmetrics

**NeedsCompilation** no

**RoxygenNote** 7.3.1

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**Repository** CRAN

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## Description

Automatic Neural Network Modeling for Time Series Forecasting

**Usage**

```
AutoNN(Data, IN, size, out_forecast)
```

**Arguments**

Data	Time series data used for the study
IN	Maximum number of input nodes
size	Maximum number of hidden nodes
out_forecast	Number of output periods to be predicted

**Value**

A list containing:

- Best\_Model
- Final\_Results
- AutoNN\_model
- Fitted
- Forecast

**References**

1. Shankar, S. V., Chandel, A., Gupta, R. K., Sharma, S., Chand, H., Aravinthkumar, A., & Ananthakrishnan, S. (2025). Comparative study on key time series models for exploring the agricultural price volatility in potato prices. *Potato Research*, 68(2), 1189-1207. DOI <https://doi.org/10.1007/s11540-024-09776-3>

**Examples**

```
ts_data <- nottem  
Model <- AutoNN(Data = ts_data , IN = 3, size = 5, out_forecast = 12)  
Model
```

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