# Article information:

Financial time series forecasting with deep learning : A systematic literature review: 2005–2019 - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S1568494620301216?via%3Dihub=>

# Article summary:

1. DL has emerged as the best performing predictor class within the ML field for financial time series forecasting.

2. This paper provides a comprehensive review of DL implementations for financial time series forecasting, including various models and implementation areas.

3. The paper presents statistical results and future directions for DL research in financial time series forecasting.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

该文章是一篇系统性文献综述，旨在探讨深度学习在金融时间序列预测中的应用。文章提到了金融行业对于成功预测金融时间序列数据的兴趣，并介绍了机器学习模型相对于传统时间序列预测技术表现更好的事实。作者还指出，自动化电子交易系统的广泛应用以及对更高收益率的需求不断推动着研究人员和从业者继续努力实现更好的模型。因此，近年来基于各种深度学习技术的预测模型已经被引入到适当的会议和期刊中。

然而，该文章存在一些潜在偏见和片面报道。首先，作者只关注深度学习在金融时间序列预测中的应用，而忽略了其他领域中深度学习的应用。其次，作者没有提供足够的证据来支持他们所提出的观点和主张。例如，在第二段中，作者声称“DL已经强势地成为ML领域内最佳表现类别”，但没有提供任何数据或研究结果来支持这个说法。

此外，在文章中也存在一些缺失的考虑点。例如，作者没有探讨深度学习在金融时间序列预测中可能存在的风险和局限性。此外，文章也没有平等地呈现双方的观点，而是偏袒深度学习模型。

总之，该文章提供了有关深度学习在金融时间序列预测中的应用的一些有用信息，但需要更多证据来支持其主张，并且需要更加全面地考虑可能存在的风险和局限性。

# Topics for further research:

* Other applications of deep learning
* Evidence supporting the claim of DL's superiority in ML
* Risks and limitations of deep learning in financial time series prediction
* Balanced presentation of different viewpoints
* Need for more comprehensive consideration of potential risks and limitations
* Additional research needed to support claims and recommendations

# Report location:

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