## References

- 1. Optuna: An academic paper on Optuna, a next-generation hyperparameter optimization framework, is available titled "Optuna: A Next-generation Hyperparameter Optimization Framework" (source: ar5iv.org).
- 2. PyTorch: PyTorch, a deep learning framework, is mentioned in the same paper as part of the discussion on deep learning and hyperparameter optimization frameworks.
- 3. Pandas: While I couldn't find a specific academic paper for Pandas, it's a well-known data manipulation library in Python. You can cite it as: McKinney, W. (2010). Data Structures for Statistical Computing in Python. In Proceedings of the 9th Python in Science Conference (pp. 51-56).
- 4. MovieLens Dataset: For the MovieLens dataset, you can reference: Harper, F. M., & Konstan, J. A. (2016). The MovieLens Datasets: History and Context. ACM Transactions on Interactive Intelligent Systems (TiiS), 5(4), 19.
- 5. Järvelin, K., & Kekäläinen, J. (2002). Cumulated Gain-based Evaluation of IR Techniques. ACM Transactions on Information Systems, 20(4), 422-446.