Data Science Seminar Series
Wednesday, March 29, 11:30-12:30 pm, OM1241

TITLE
Hyperparameter Tuning and Optimization for Recommender Systems

SPEAKER
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ABSTRACT
Recommender systems have shown remarkable advancements in recent years, effectively addressing data sparsity and cold-start issues that limit traditional Recommender Systems. However, with the recent advancements in Deep Learning, one of the challenges is tuning the performance of a recommender system. This depends on the various hyperparameters used for training the model. The proposed research investigates the role of deep autoencoders in recommender systems. A novel recommender system was modelled, compared with the traditional approaches and evaluated using various metrics. A randomized search was applied with different hyperparameter configurations. This helped in tuning the best hyperparameters for optimization. This also helped in generalizing the model for datasets of the similar family. This approach enhances system performance in terms of recommendation accuracy and computational efficiency. It was observed that the proposed approach gives a relatively lower error rate in contrast to the existing algorithms.

BIOGRAPHY
Dr. Ajay Dhruv is an accomplished academician, researcher, and author who currently serves as an Assistant Teaching Professor with the Department of Computing Science at Thompson Rivers University. He has an impressive track record, with more than 15 international licenses to his credit in the field of Artificial Intelligence. Dr. Dhruv is also an esteemed editorial board member of the International Journal of Data Science and Analysis, USA. His research interests include statistical machine learning, deep learning, neural networks, hyperparameter tuning, and optimization. He has contributed significantly to several research projects, academic publications, and conference presentations.

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