IMPERIAL

Department of Mathematics

Deep Reinforcement Learning for Ad Personalization

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The work contained in this thesis is my own work unless otherwise stated.

Signed: Martin Batěk Date: 17 July 2024

Abstract

ABSTRACT GOES HERE

Acknowledgements

ANY ACKNOWLEDGEMENTS GO HERE

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1 Introduction

The introduction section goes here[1].

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2 Background

Background chapter.

2.1 Problem Statement

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2.2 Literatiure Review

2.2.1 Deep CTR Prediction

2.2.2 Deep Reinforcement Learning

3 Deep CTR model Evaluation

3.1 Model Selection Methodology

3.2 Model Summaries

3.2.1 Shallow Models

Logistic Regression

Factorization Machines

3.2.2 Deep Models

Factirization Supported Neural Networks

Product Based Neural Networks

Wide & Deep Learning

DeepFM

Feature Generation by Convolutional Neural Network

Automatic Feature Interaction Learning

3.3 Benchmark Datasets and Exploratory Data Analysis

3.4 Model Evaluation

3.5 Deep CTR Model Results

4 Deep Reinforcement Learning for Ad Personalization

4.1 DeepCTR-RL Framework

4.2 Experiment Setup

4.3 Results

5 Discussion

Discussion goes here.

6 Conclusion

Conclusion goes here.

Bibliography