Flatland Challenge



Deep learning course final project

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Foreword

Introduction

Background

Railway encoding

- 3.1 Cell orientation graph
- 3.2 Shortest path computation

Observations

- **4.1** Tree
- 4.2 Binary tree

Predictions

5.1 Shortest path

Action space

- 6.1 Choices
- 6.2 Masking
- 6.3 Selection

Rewards

7.1 Shaping

Models

- 8.1 DQN
- 8.2 **DDQN**
- 8.3 DDDQN
- 8.4 GNN

Replay buffers

- 9.1 Uniform
- 9.2 Prioritized

Conclusions