

AI Techniques Lab 2025: Local Search (N-Queens) and Classification (IRIS)

Your Name (ID)

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Abstract

Briefly state goals, methods, and key results.

1 Software & Hardware Environment

Python version, OS, CPU/GPU; library versions; how you measured time.

2 Local Search: N-Queens

2.1 Problem Setup & Representation

2.2 Heuristics & Neighbor Functions

2.3 Protocol (restarts, limits), Timing

2.4 Results (N=6,8,10,12) with figures

2.5 Discussion (intermediate steps for N=6)

3 Learning: Classification on IRIS

3.1 Data & Splits (train/test same for all models)

3.2 Models: k-NN, Decision Tree, Neural Network (topology)

3.3 Feature Reduction Experiments

3.4 Metrics, Confusion Matrices, Comparison Table

3.5 Discussion

4 Conclusions & Limitations