

NeuroLearn — Project Report (Short)

Summary

NeuroLearn is a prototype personalized learning platform for neurodiverse students. This package contains a

Differentiating features

- UX Personas (demo): different content strategies per student
- Contrastive idea (not fully implemented): instructions included in report for future extension
- Privacy-first considerations: notes on federated learning in README

How to extend

1. Replace synthetic_data with real, consented datasets.
2. Implement contrastive student-content encoders (dual-encoder + contrastive loss).
3. Add explainability (SHAP) and teacher-in-the-loop A/B testing with persistent storage.

Files included

- app.py, train.py, synthetic_data.py, model_utils.py, requirements.txt, README.md