

ASD vs TD Binary Classification - Summary

Generated: 2025-09-11T17:28:46.984987

Completed Phases: data_preparation, feature_engineering, exploratory_analysis, model_development

Data Summary:

Total sessions: 823

Unique children: 270

Label distribution: {'ASD': 489, 'TD': 334}

Model Performance (Holdout):

Best model: LightGBM

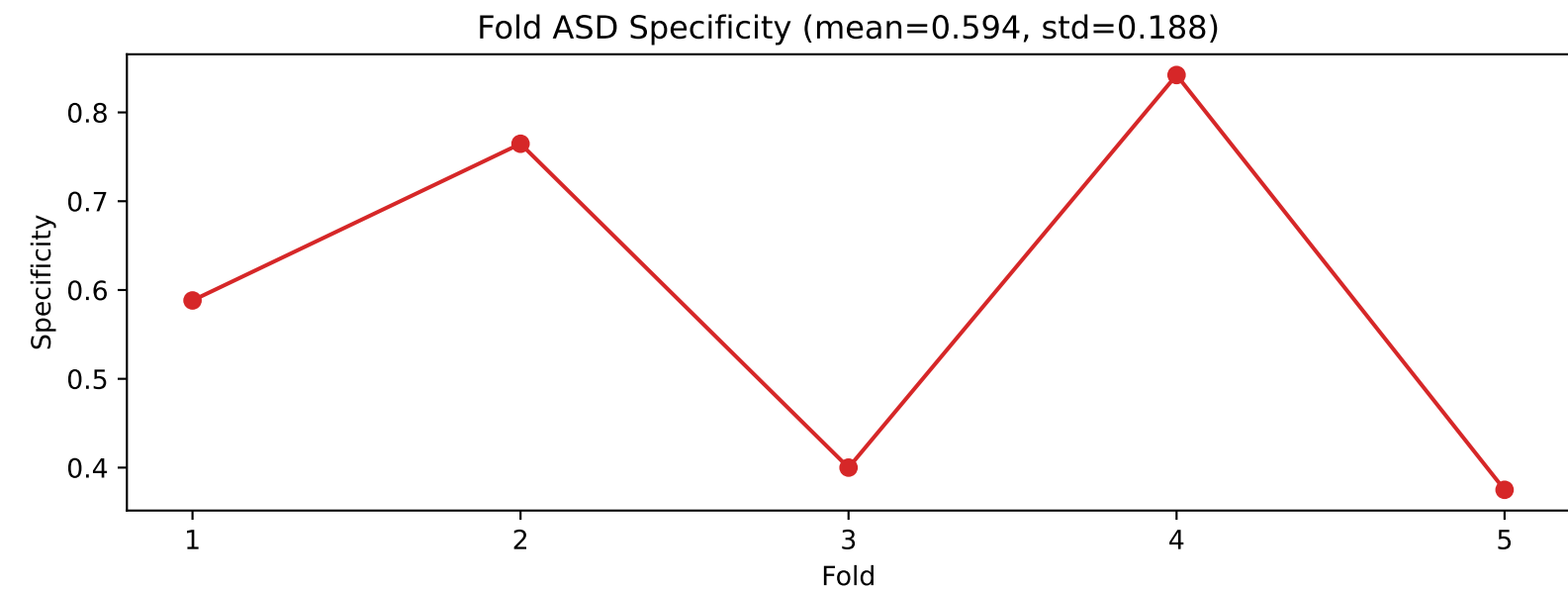
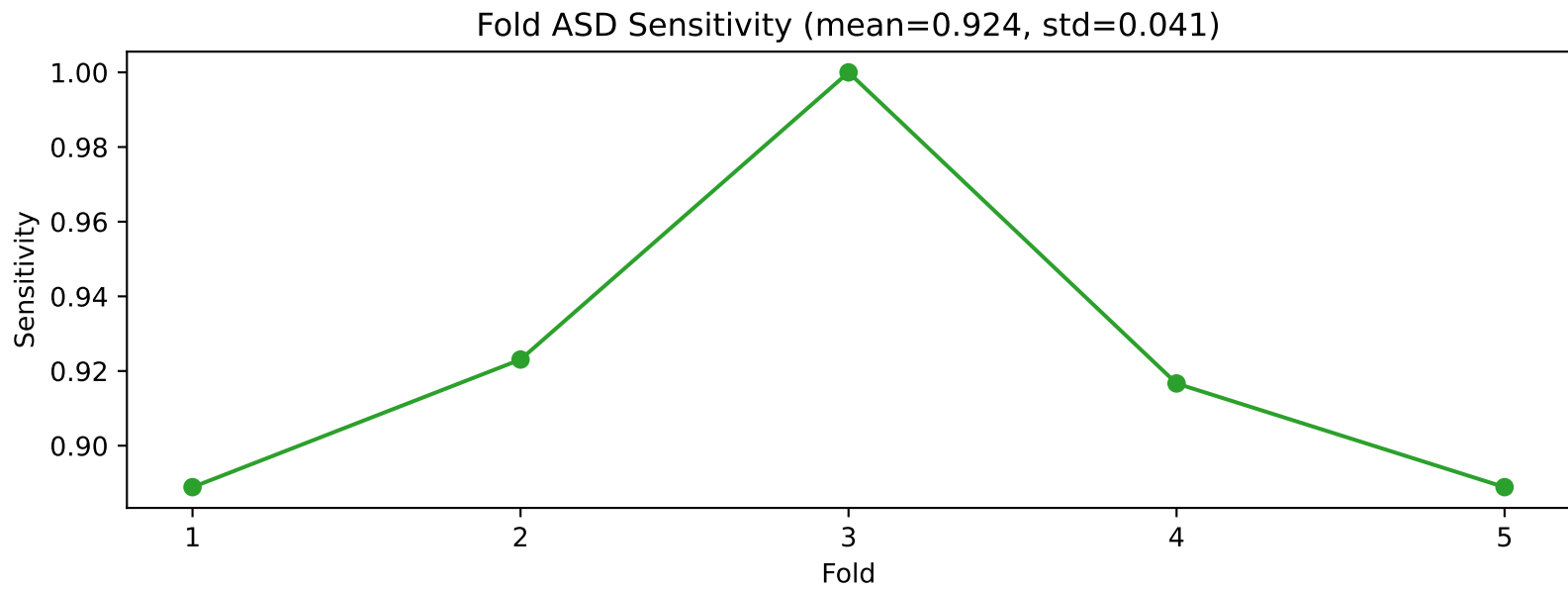
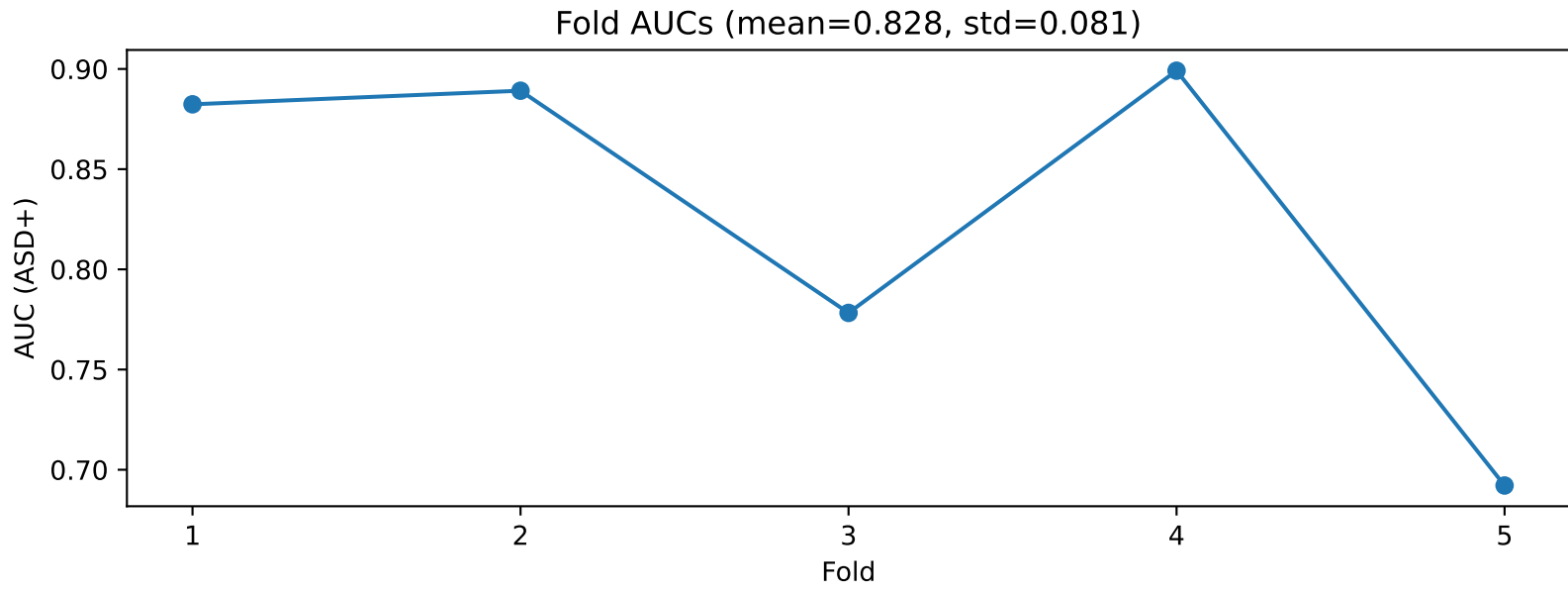
Best CV AUC: 0.828

Holdout AUC: 0.8787878787878788

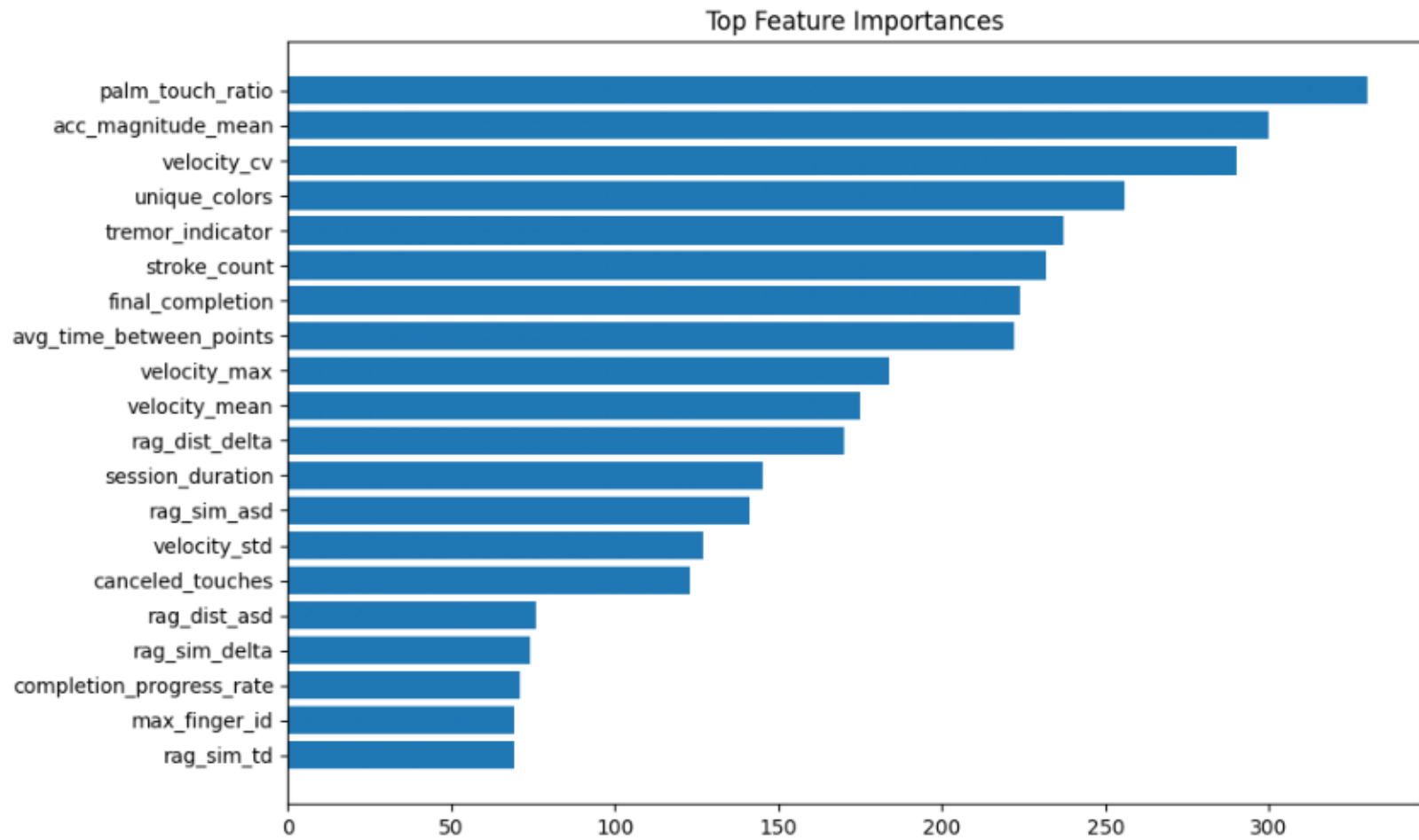
Holdout ASD Sensitivity: 0.9393939393939394

Holdout ASD Specificity: 0.19047619047619047

Cross-Validation Metrics (LightGBM)



top_features.png



shap_summary.png

