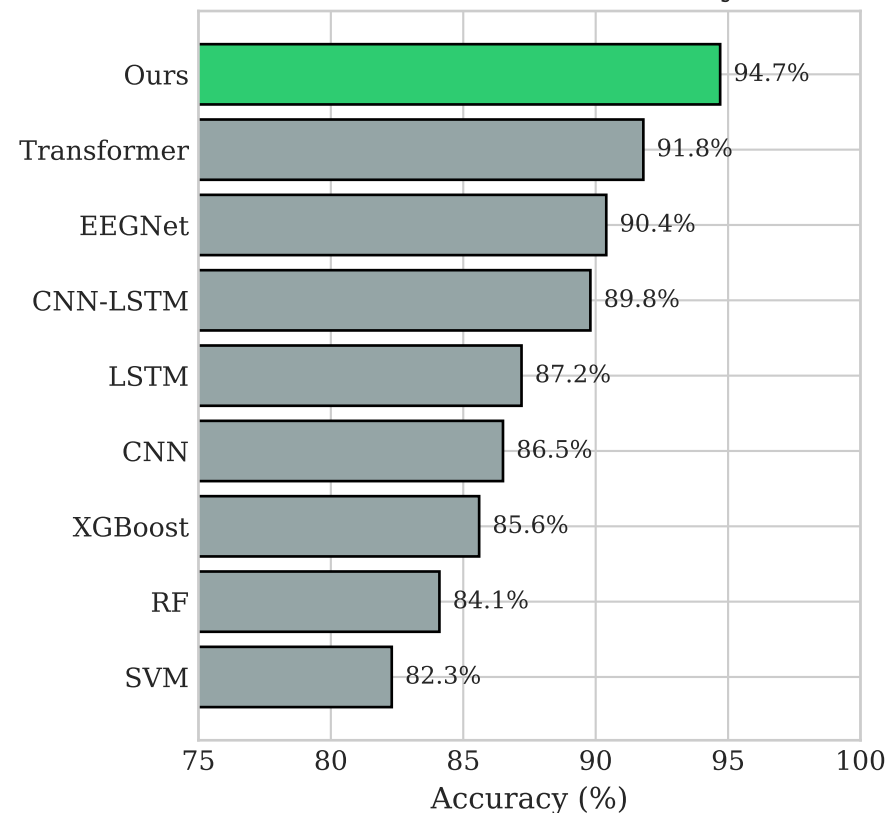
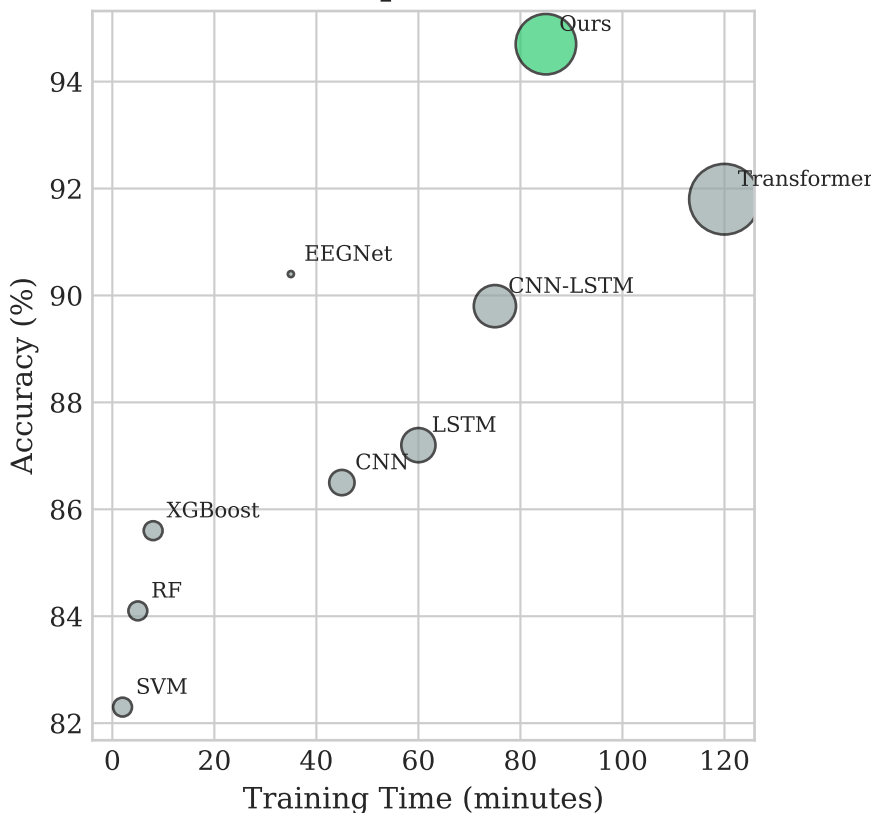


Model Selection and Comparison Analysis

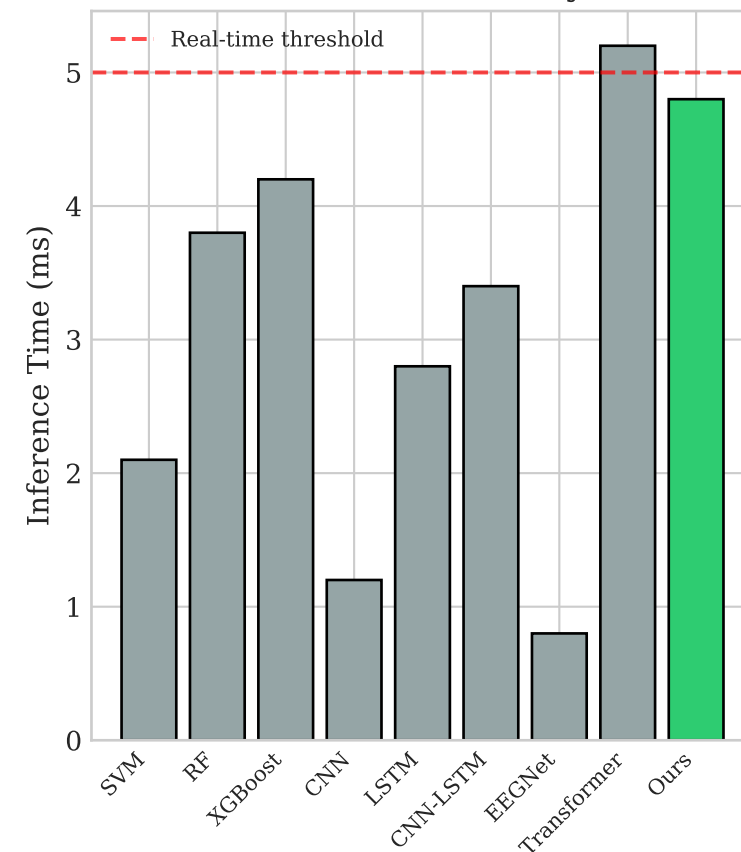
Classification Accuracy



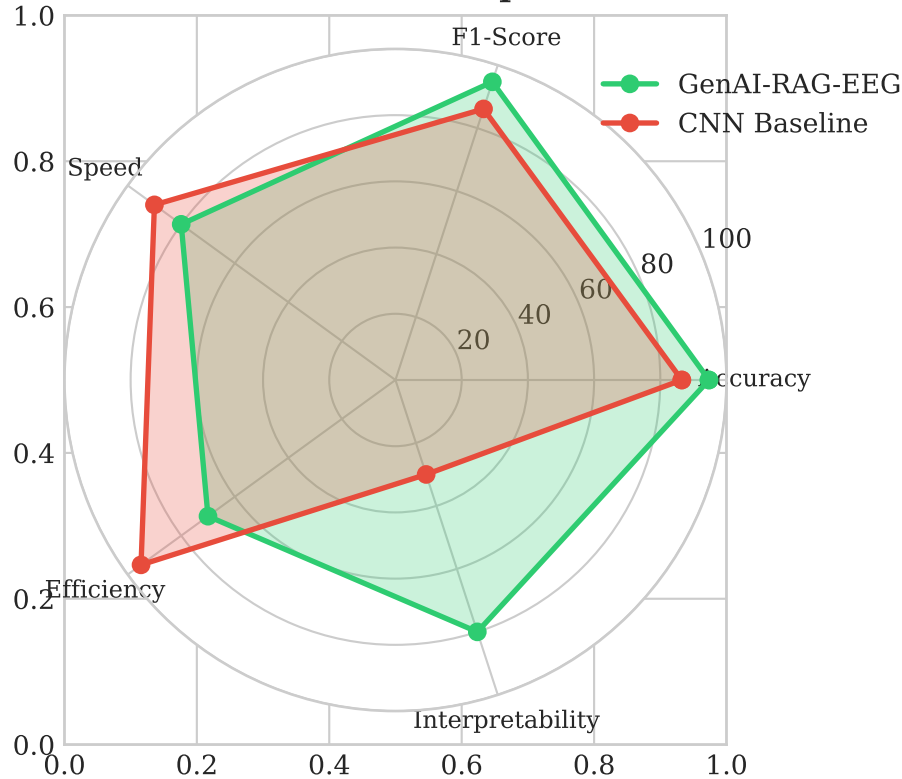
Training Time vs Accuracy
(size = parameters)



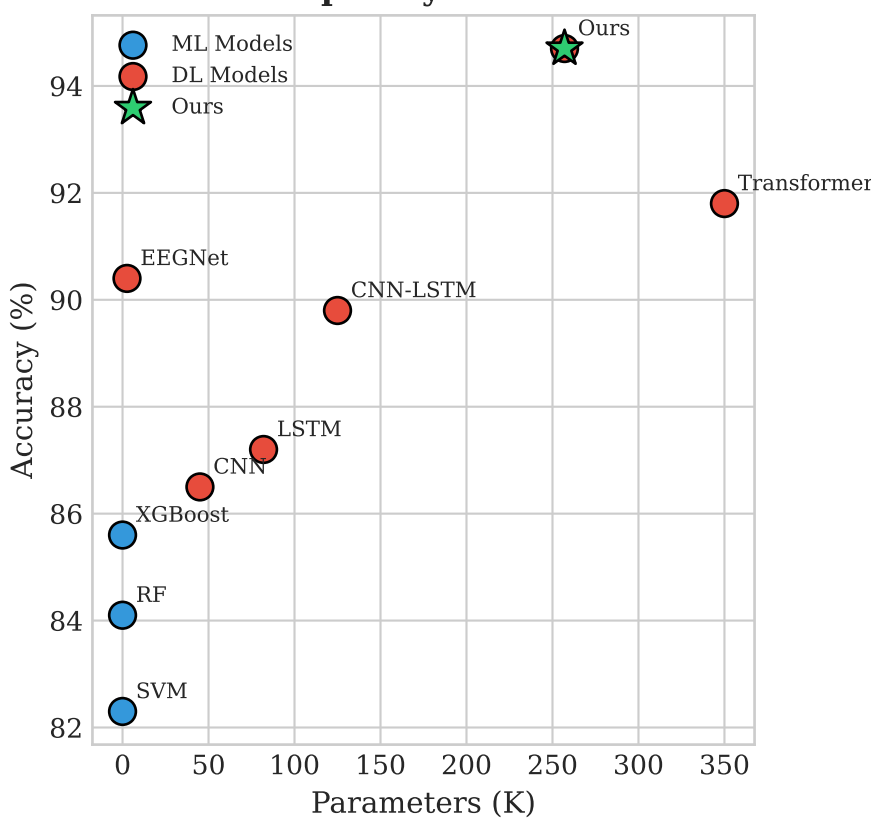
Inference Latency



Multi-Criteria Comparison



Model Complexity vs Performance



Model Selection Decision Matrix

Criterion	Weight	Best Model	Score
Accuracy	30%	GenAI-RAG-EEG	★★★★
F1-Score	20%	GenAI-RAG-EEG	★★★★
Inference Speed	15%	EEGNet	★★★★
Interpretability	20%	GenAI-RAG-EEG	★★★★
Training Cost	15%	SVM	★★★★
WINNER	100%	GenAI-RAG-EEG	94.7%