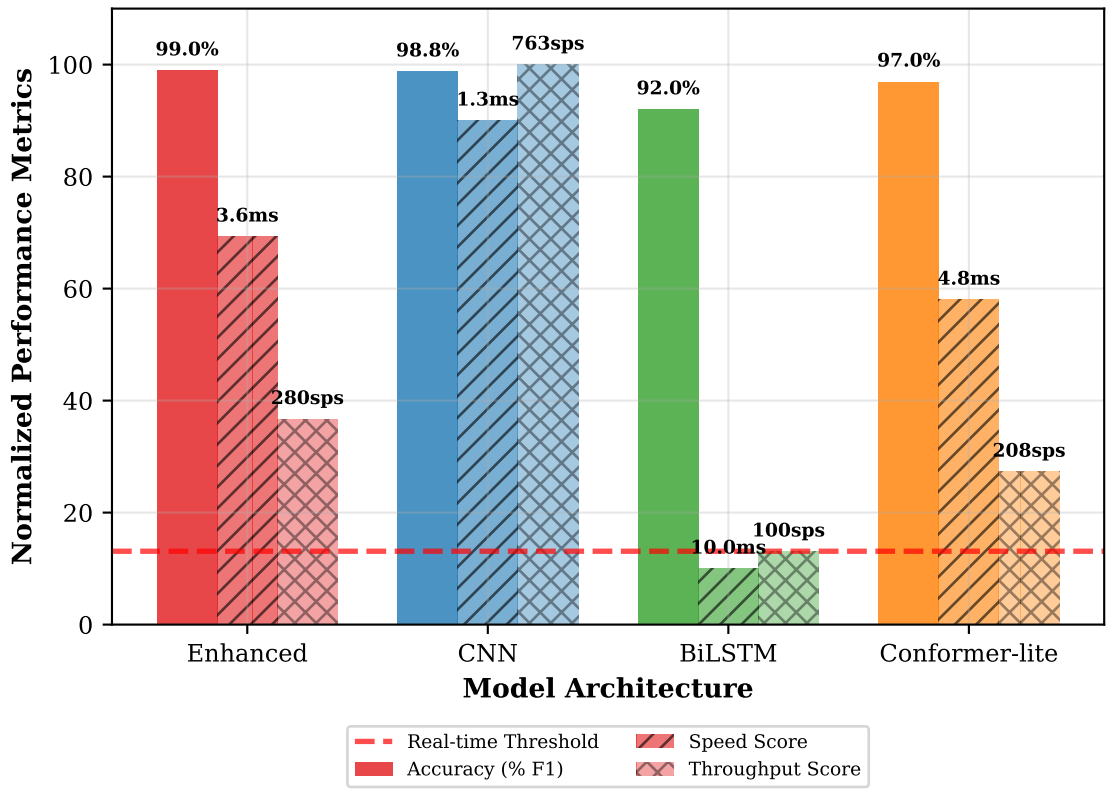


Optimized IoT Deployment Feasibility Analysis for WiFi CSI HAR Systems\nIntegrated Performance, Efficiency, and Practical Deployment Assessment

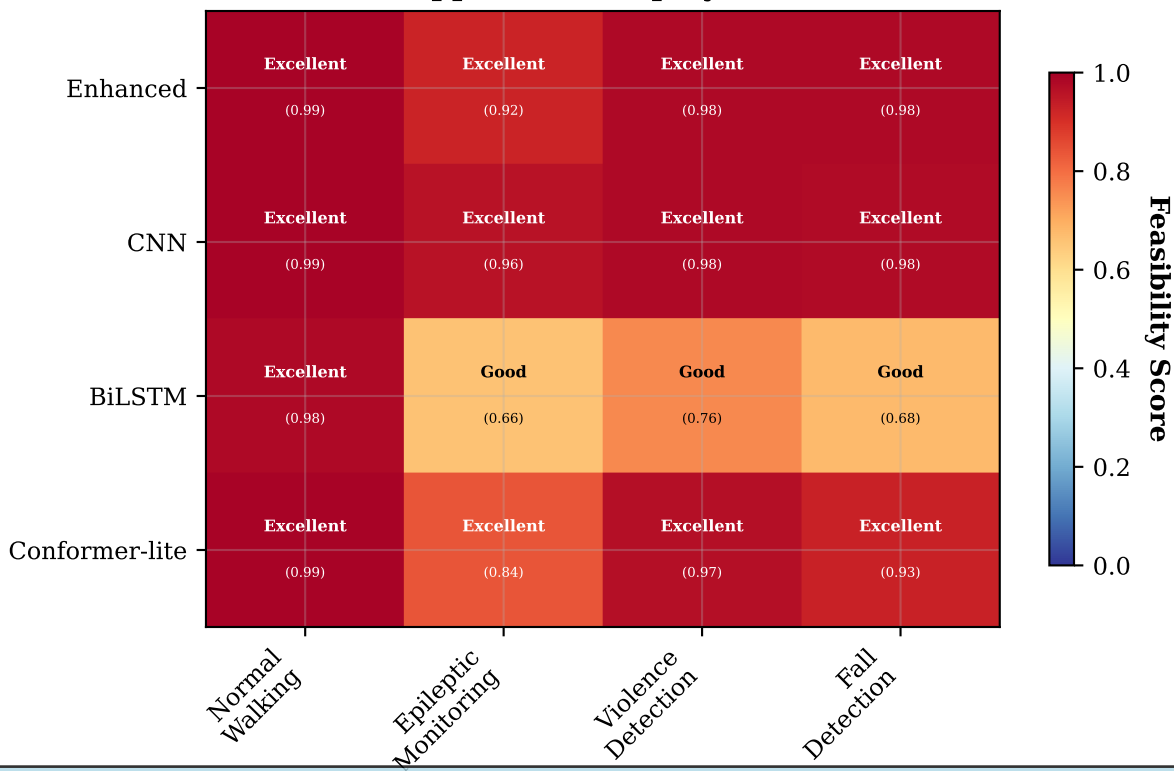
(a) Comprehensive Performance Analysis



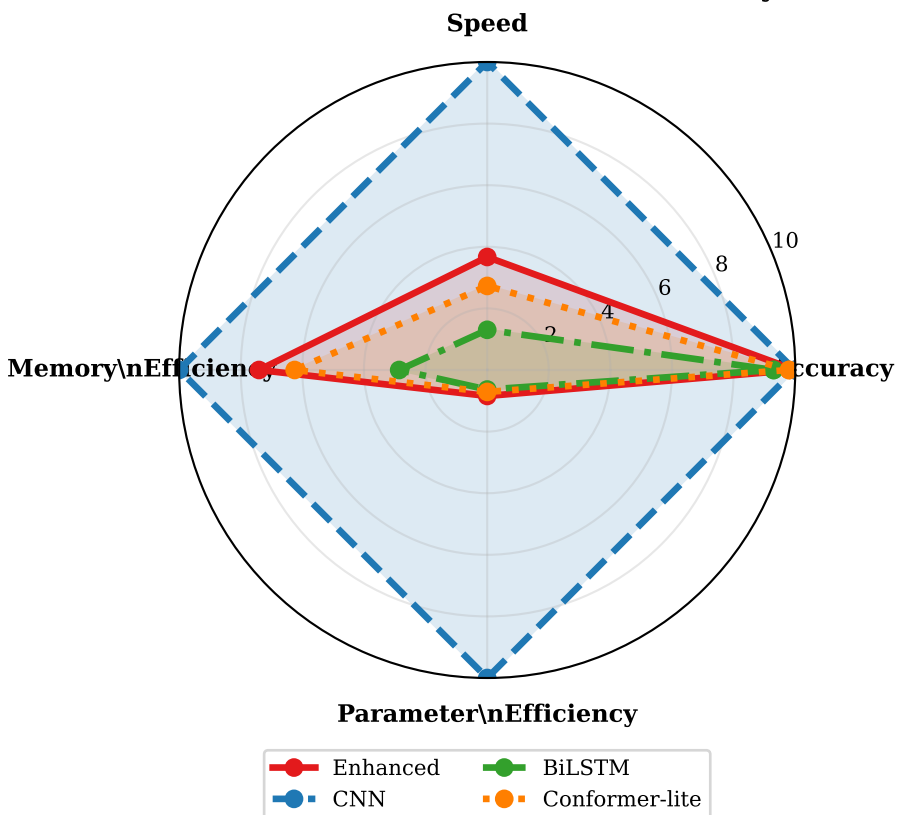
(b) Technical Specifications & Deployment Status

Model	Parameters\n(MB)	Memory\n(MB)	Latency\n(ms)	Throughput\n(sps)	Status
Enhanced	439K	2.7MB	3.57ms	280sps	Production\nReady
CNN	37K	2.0MB	1.31ms	763sps	Production\nReady
BiLSTM	583K	7.0MB	10.04ms	100sps	IoT\nSuitable
Conformer-lite	520K	3.2MB	4.80ms	208sps	IoT\nReady

(c) CSI HAR Application Deployment Assessment



(d) Multi-Dimensional Resource Efficiency Profile



Key Insights: Enhanced model achieves optimal balance (99.0% F1, 3.6ms latency, 2.7MB memory)\nCNN model offers highest throughput (763 sps) suitable for continuous monitoring scenarios\nAll models demonstrate readiness for real-world CSI HAR applications including medical and security monitoring