Metric	BETH (Unsupervised)	UNSW-NB15 (Supervised)
	Network Security Capstone - Comprehensive Results Summary	
Task Type	Anomaly Detection	Attack Classification
Best Model	N/A	N/A
Primary Metric	Detection Rate / FPR	ROC-AUC / F1-Score Two-Stage Pipeline (0.747)
Key Strengths	No labels required	High accuracy with labels
	Identifies novel attacks	Clear interpretability
	TF-IDF feature engineering	Two-stage pipeline workflow
Key Challenges	Balancing precision/recall	Requires labeled data
	Feature selection critical	Class imbalance
	Threshold tuning	Feature engineering critical
Feature Engineering	TF-IDF encoding	Source-destination pairs
Impact	Enables anomaly detection	Critical for performance
	50 selected features	Feature selection (30 features)
Recommendation	Use when labels unavailable	Use when labels available
	Initial threat hunting	Production classification