Multimodal Root Cause Analysis System Architecture

Legend:
- Input Modalities
- Encoders
- Fusion
- Causal Discovery
- RCA Output

Metrics

(Time-series)

Logs

(Text sequences)

Traces

(Graphs)

Chronos-Bolt

Foundation Model

20M params

Drain3 Parser

+ TF-IDF

1247 templates

2-Layer GCN

Graph Neural Net

Mean aggregation

E_metrics (256d)

E_logs (256d)

E_traces (256d)

PCMCI

Causal Discovery

Cross-Modal Attention Fusion

8 heads, 3 layers

Query-Key-Value mechanism

Service Ranking Network

FC layers: 512 → 256 → 128 → 41

Ranked Root Causes