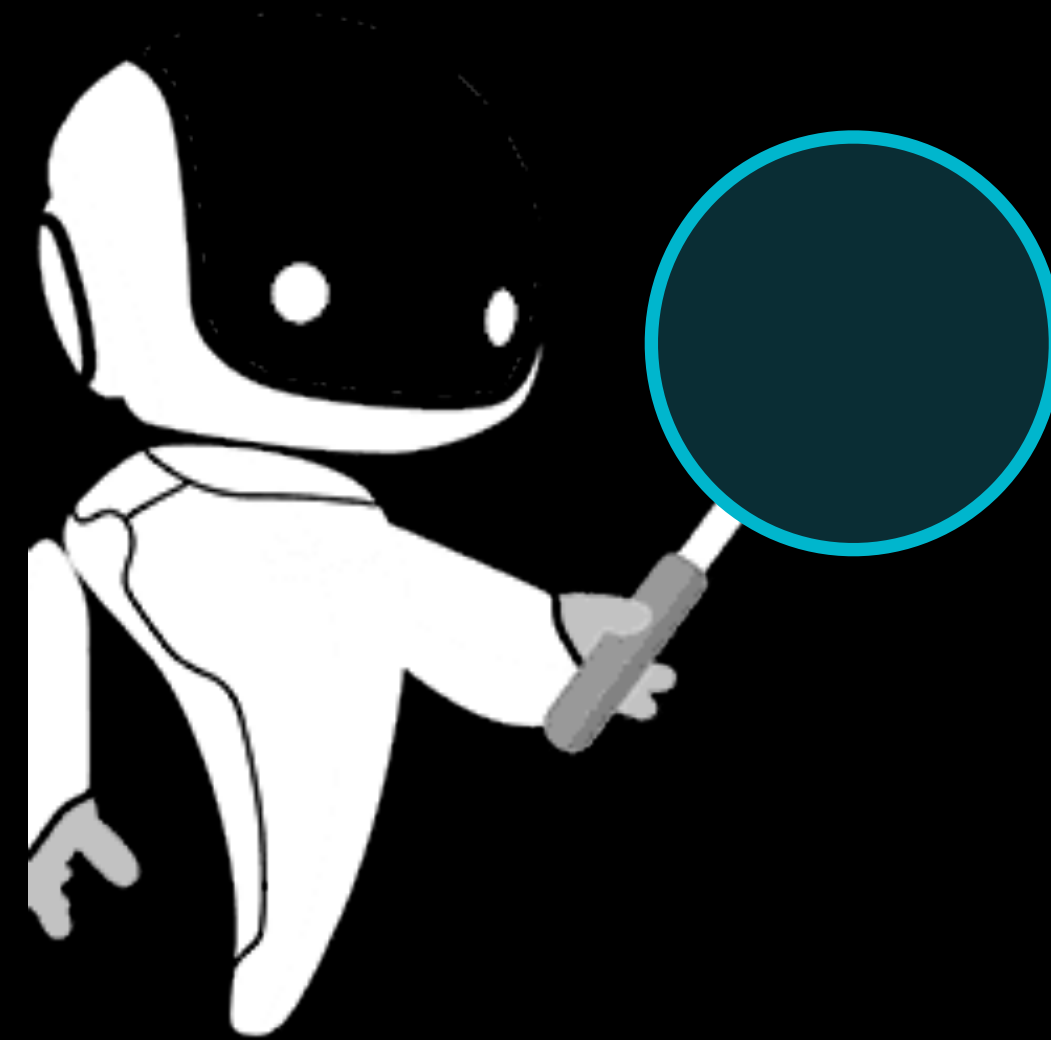


INSTANA

WILLIAM LOUTH

COMPLEXITY SCIENTIST



OBSERVABILITY

SERVICE COGNITION

EPISODIC MEMORIES

EVENT SIMULATION

CONTROLLABILITY

RESILIENCE ENGINEERING

ADAPTIVE CONTROL

RESOURCE MANAGEMENT

OPERABILITY

VISUALIZATIONS

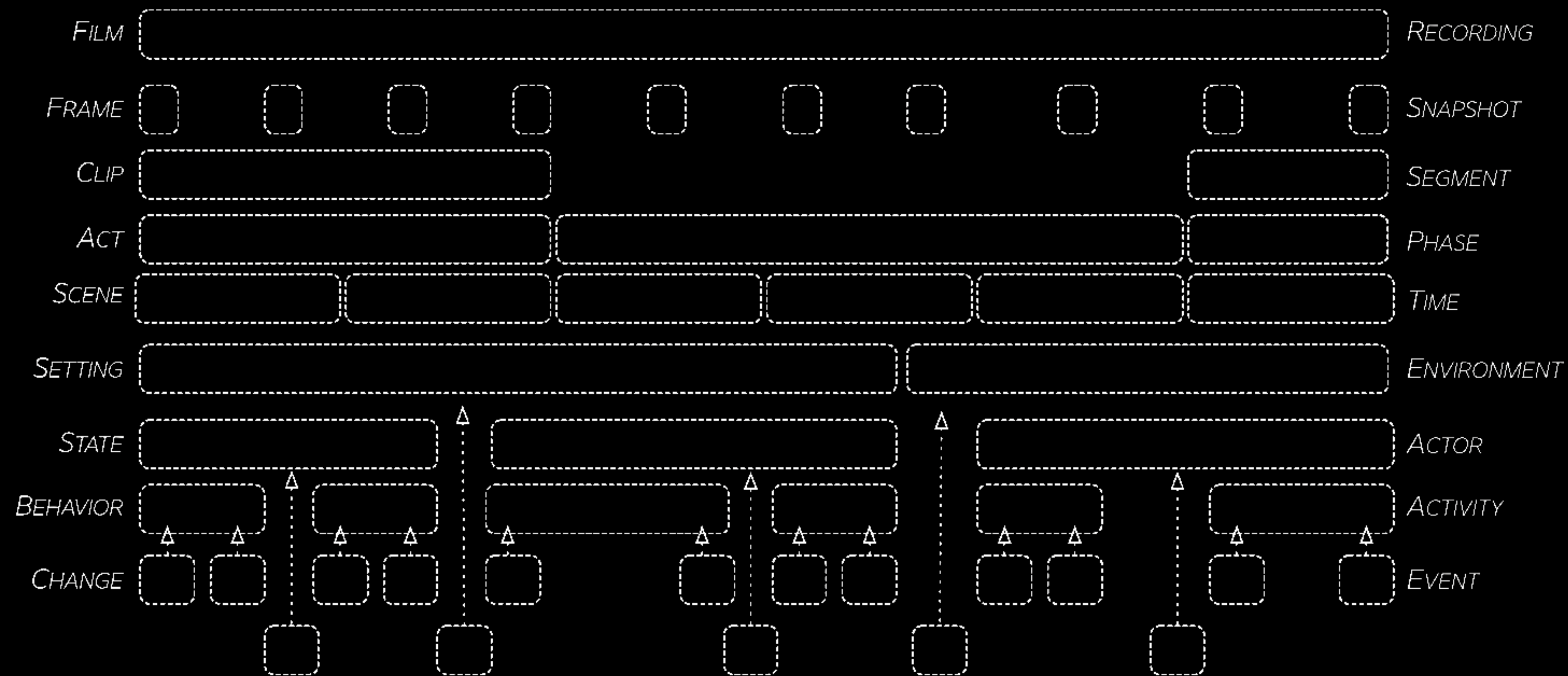
LEARNING

INTELLIGENCE

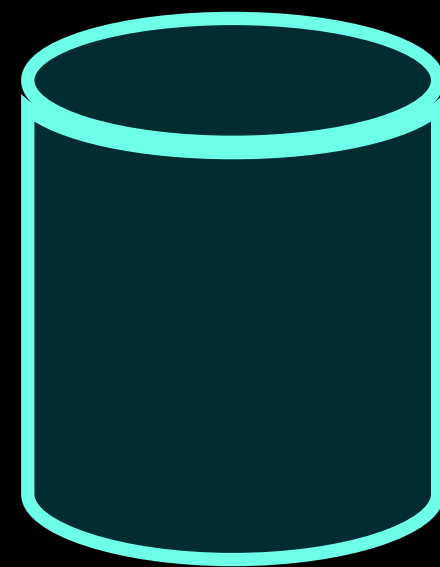


MACHINES NEED
MEMORIES

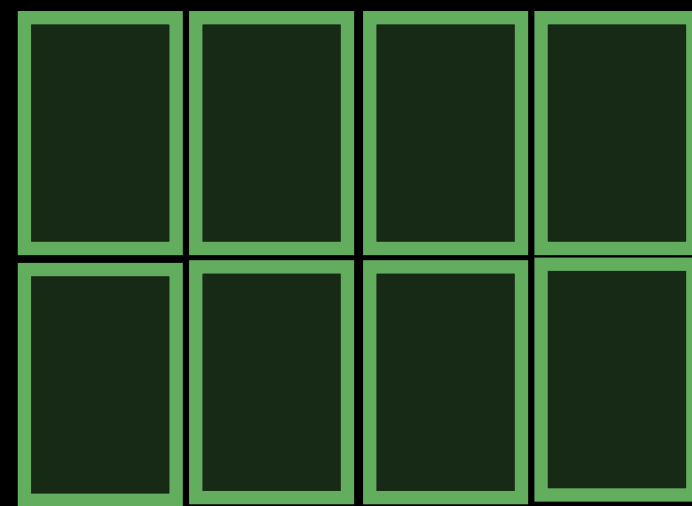
INSTANA



TRACES/METRICS/LOGS



DATABASE



TABLES

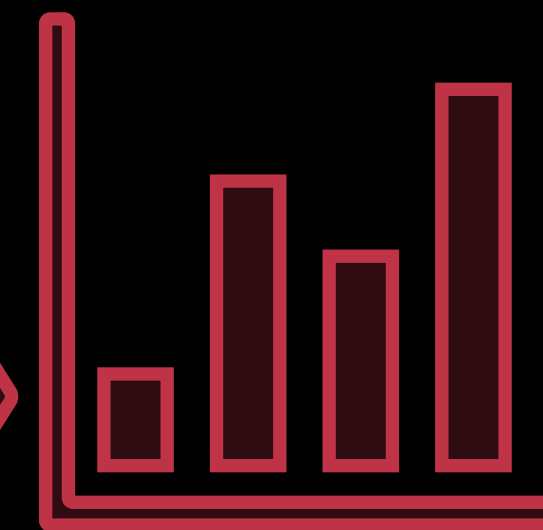


QUERY

DATASET

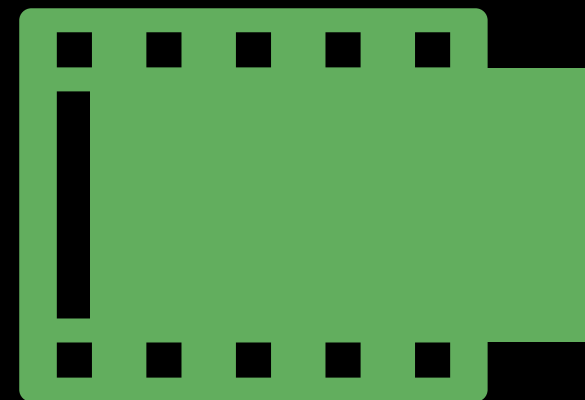


CONSOLE

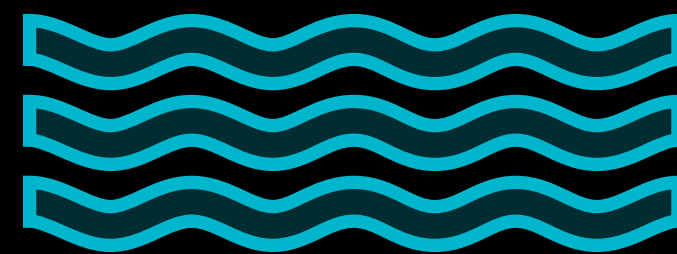


CHARTS

SENSORS



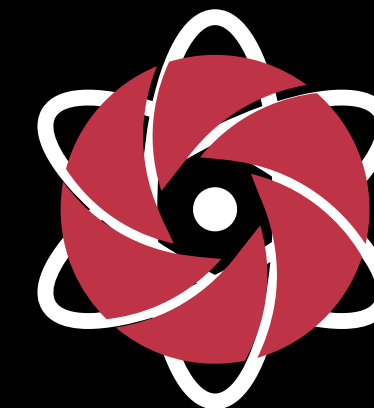
AGENTS



SERVICES



STATUS

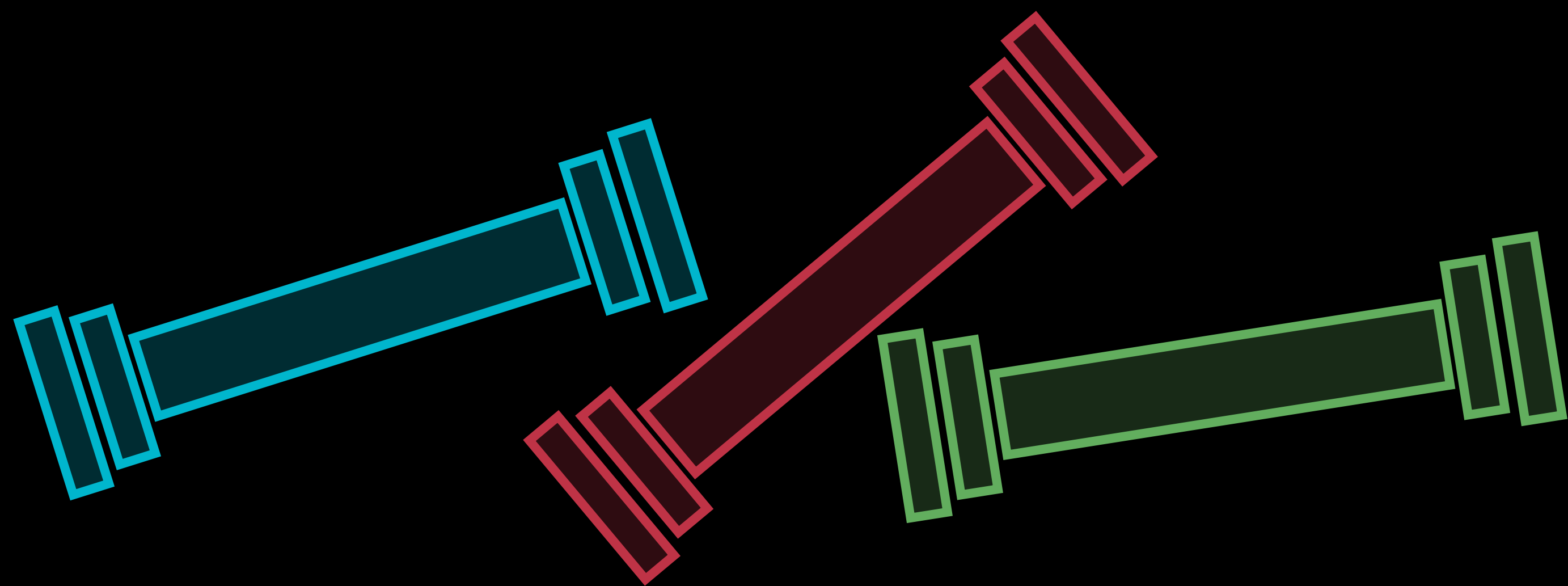


COLLECTIONS

CHANNELS

CHANGES

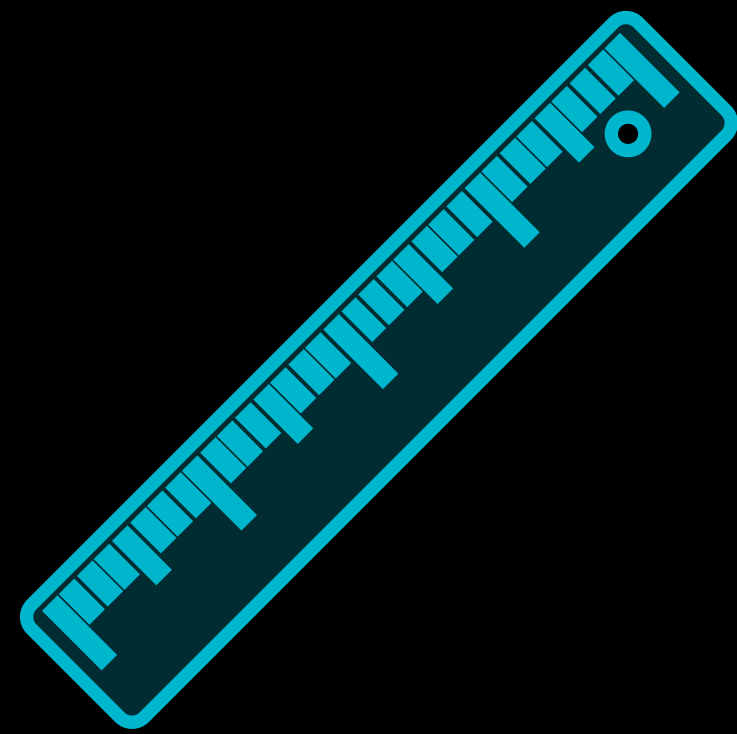
SIGNALS



LOGGING

METRICS

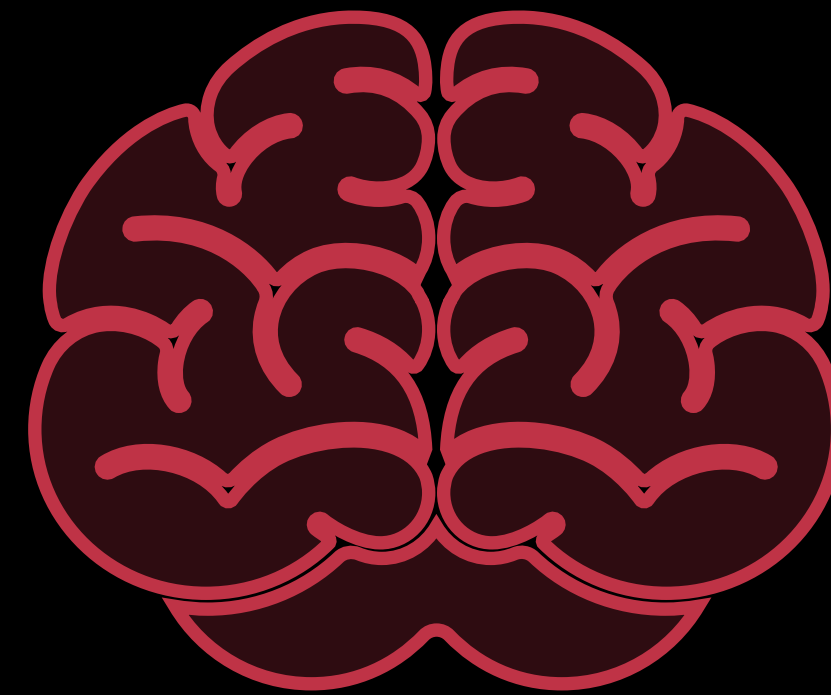
TRACING



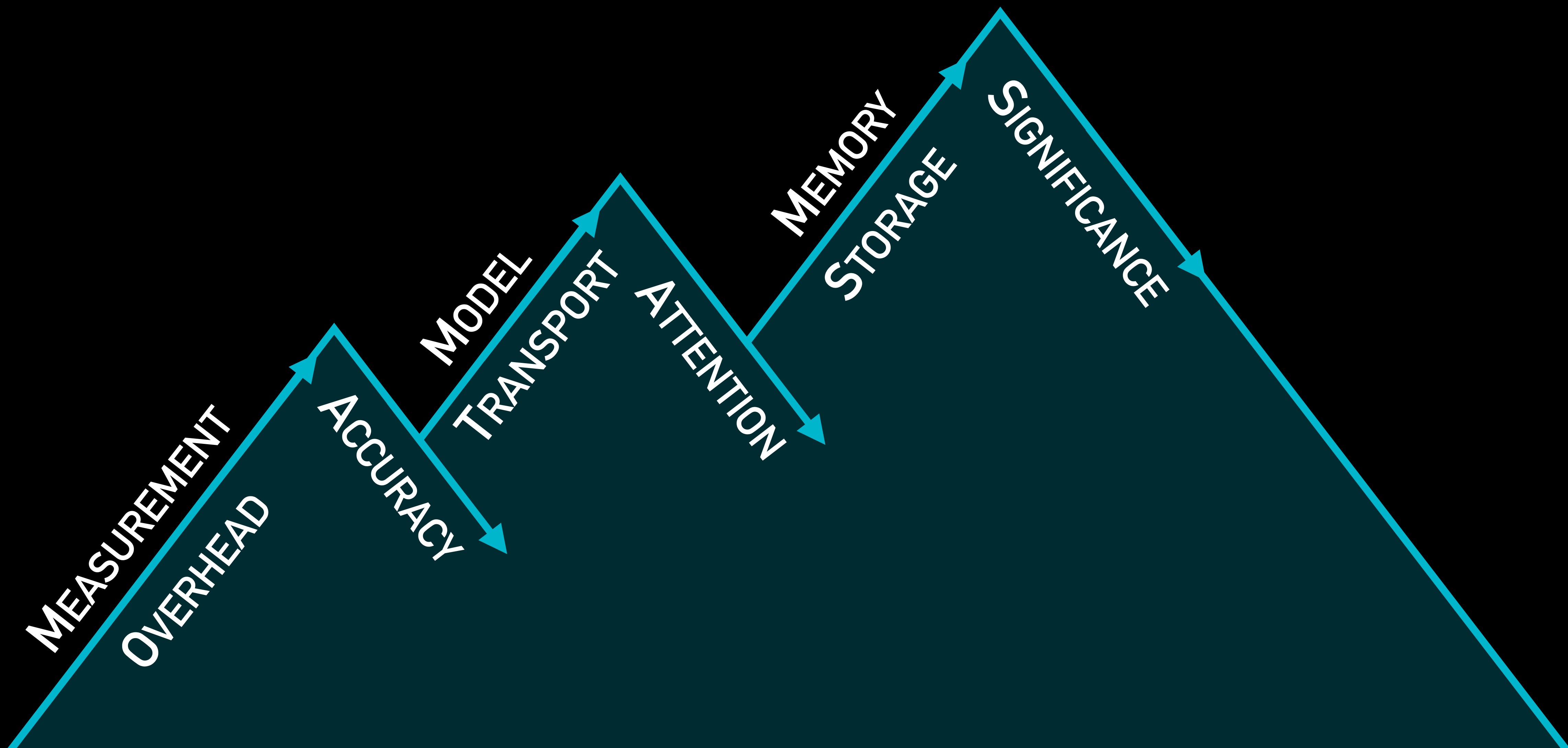
MEASURE

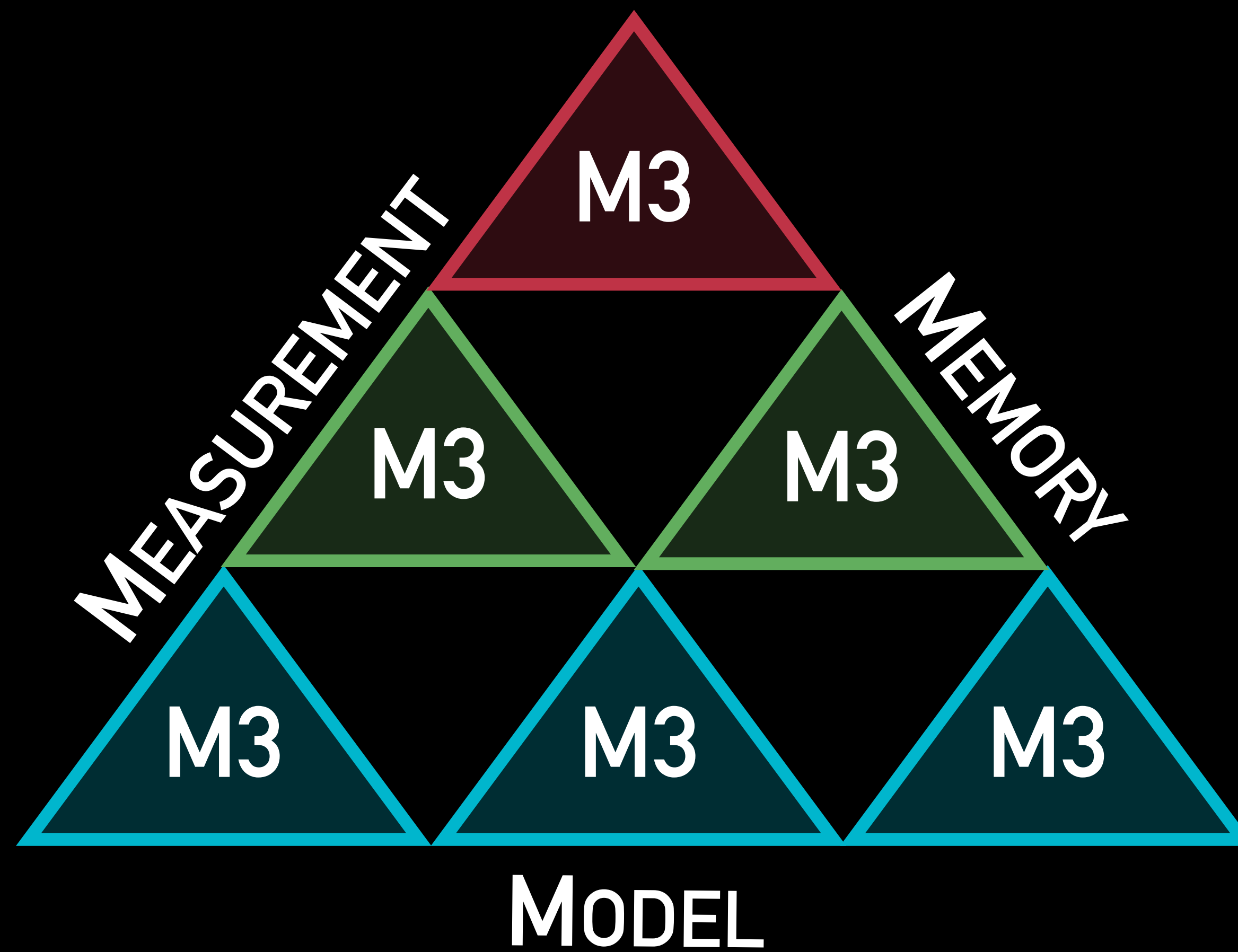


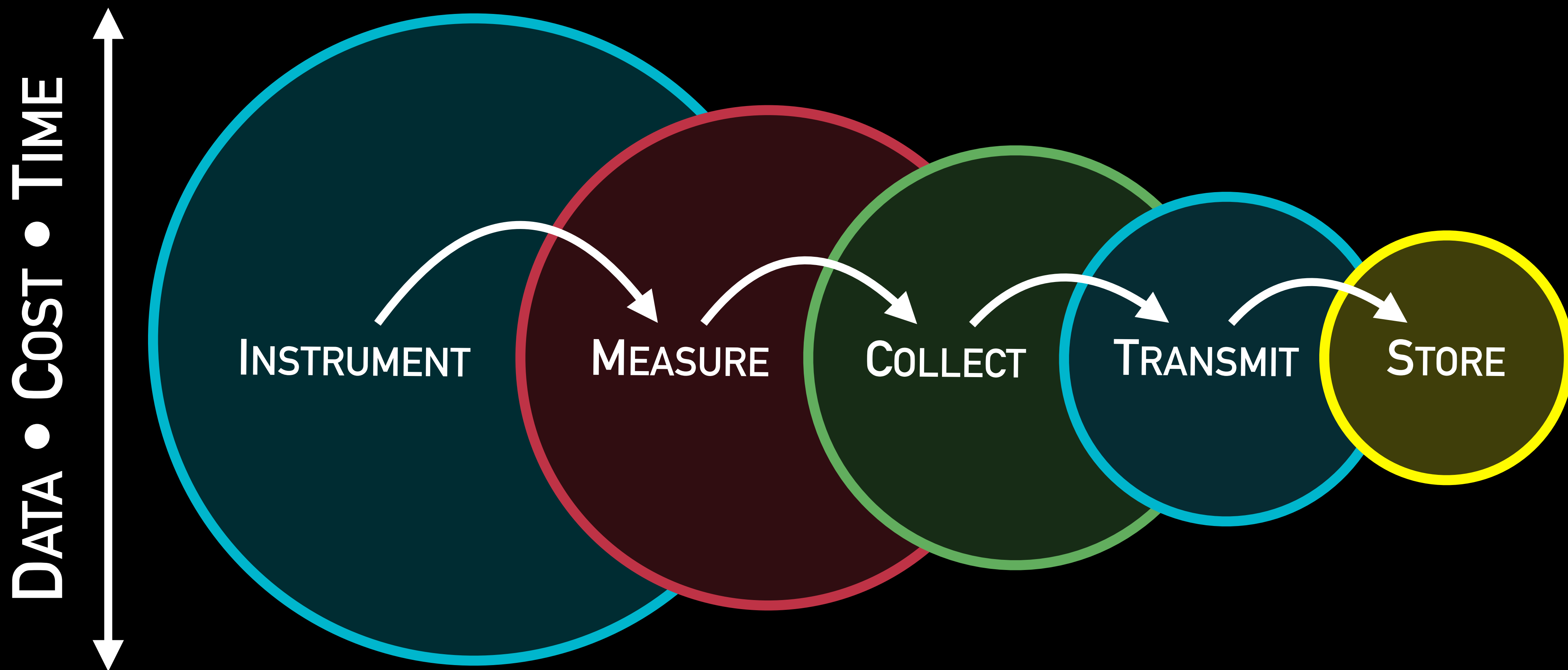
MODEL

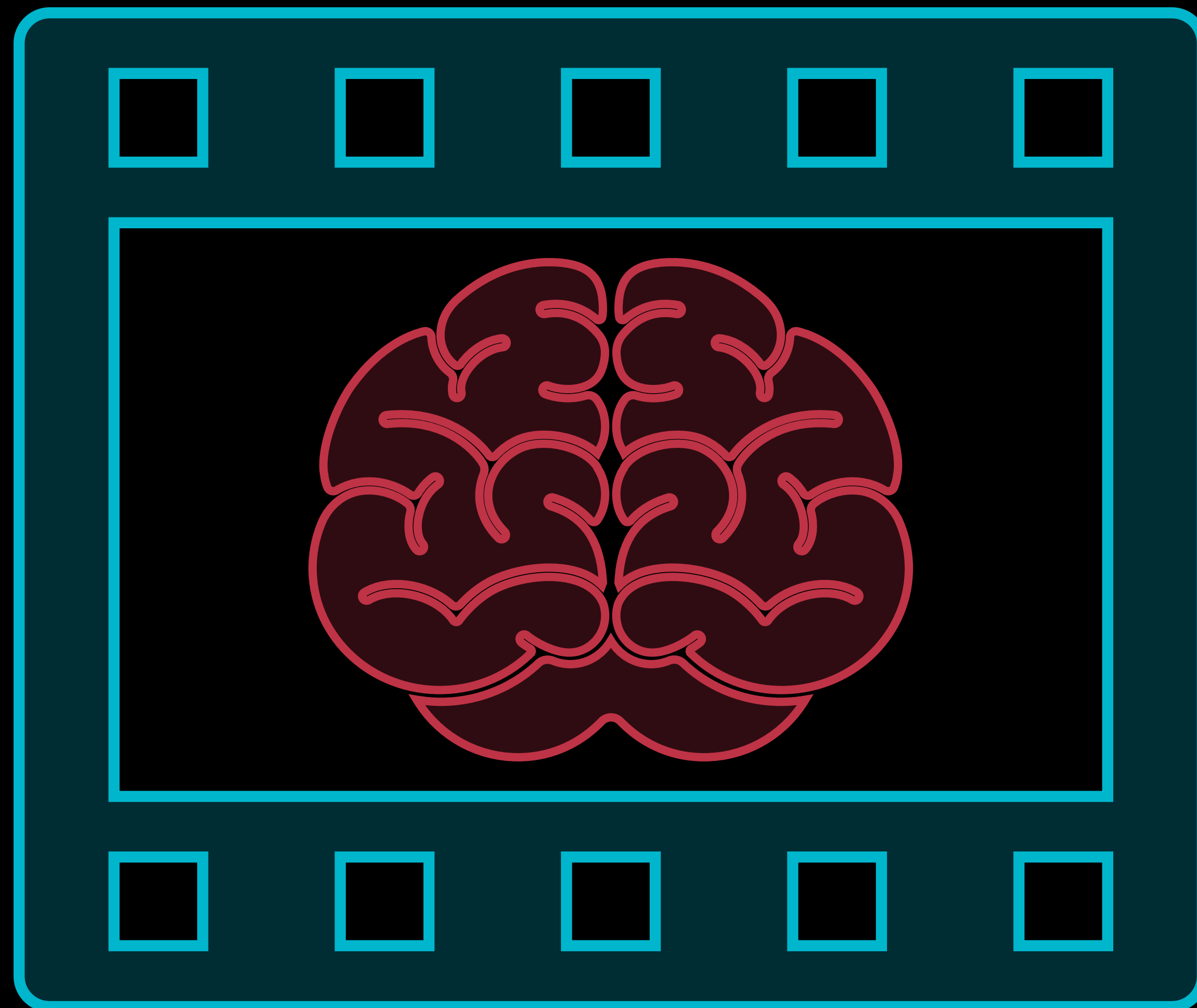
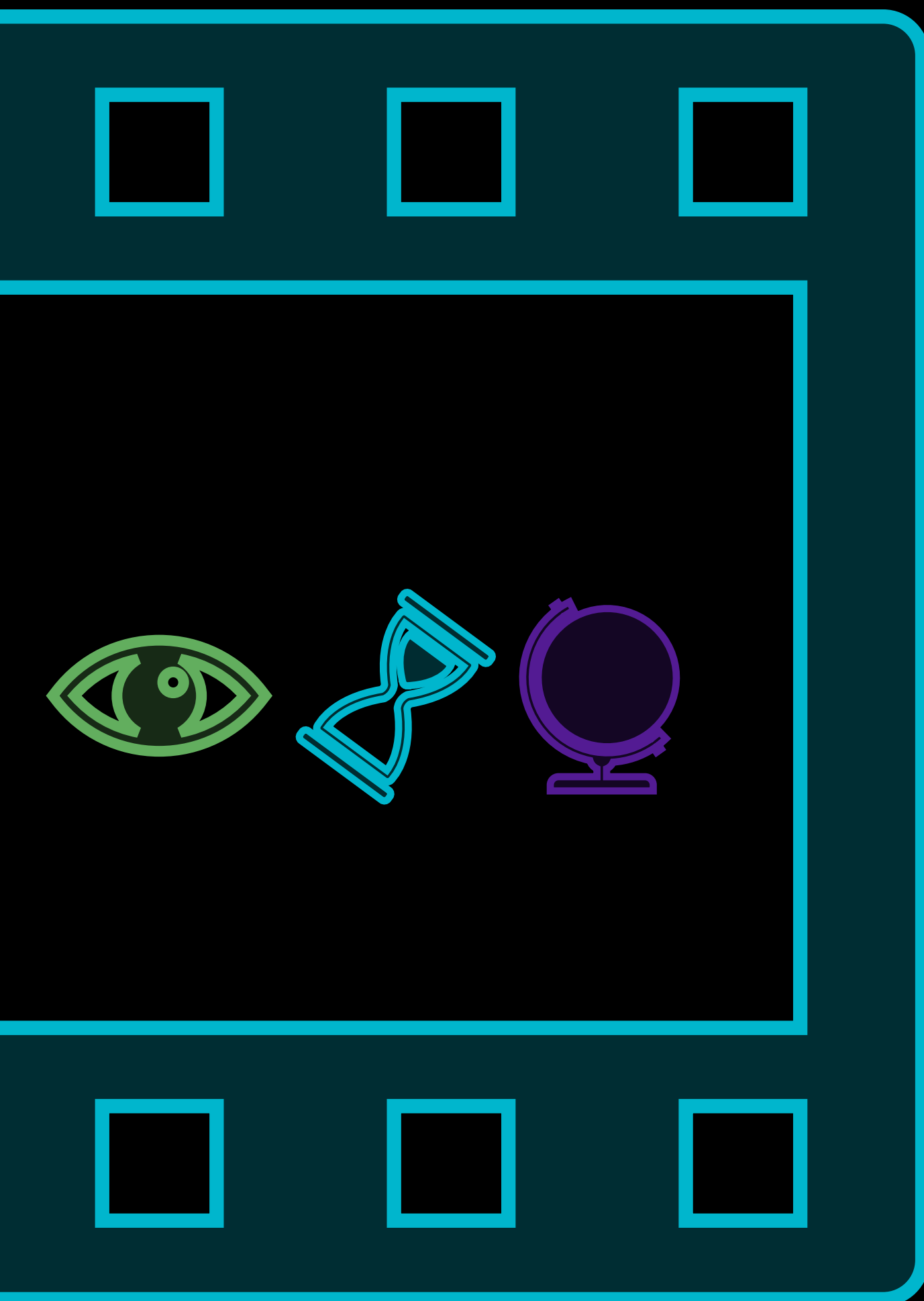


MEMORY



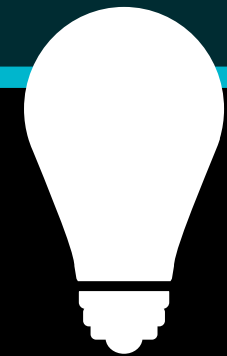








SENSORY SHORT-TERM



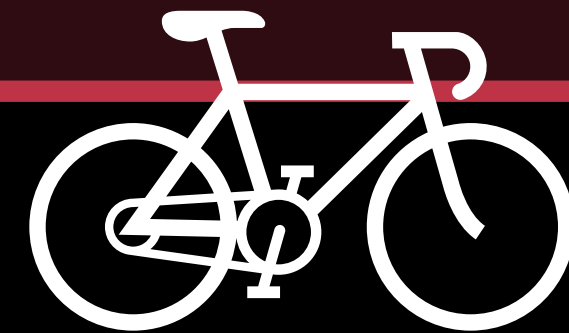
LONG-TERM

IMPLICIT

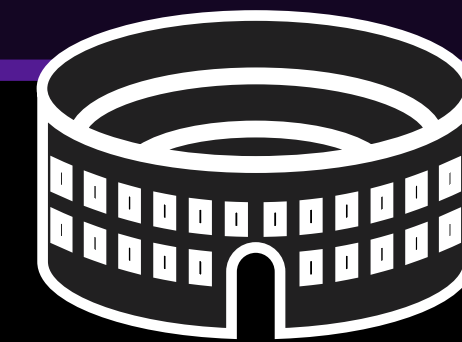
EXPLICIT

PROCEDURAL

DECLARATIVE



EPISODIC SEMANTIC



EFFECTIVE **MONITORING**

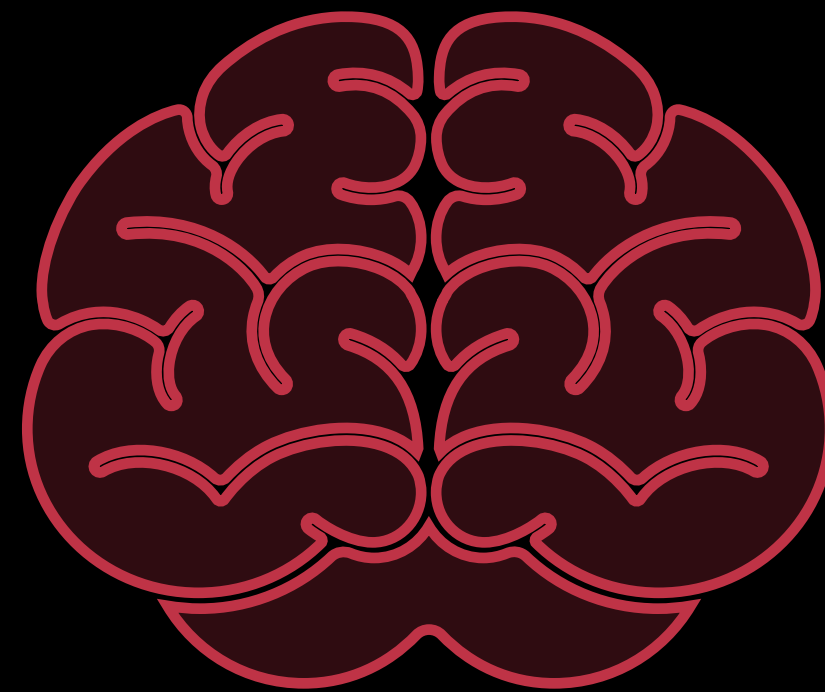
DEPENDS ON

ORGANIZED **MEMORY**

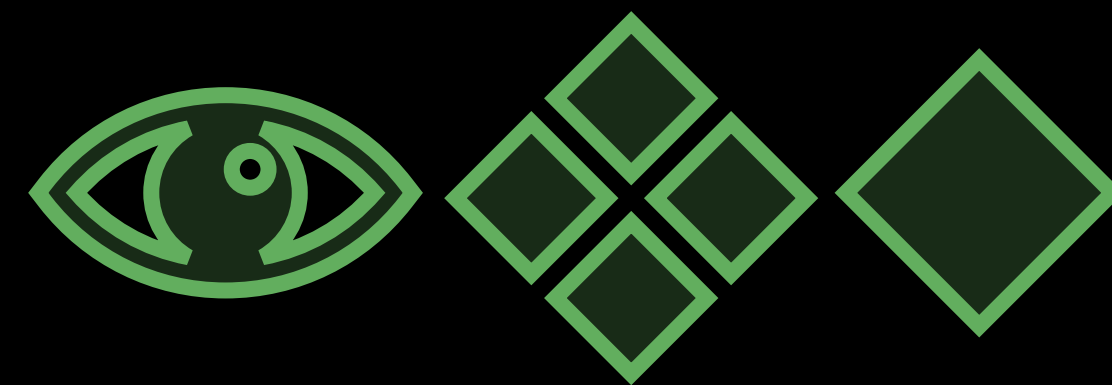
RECOLLECTION



SEARCH



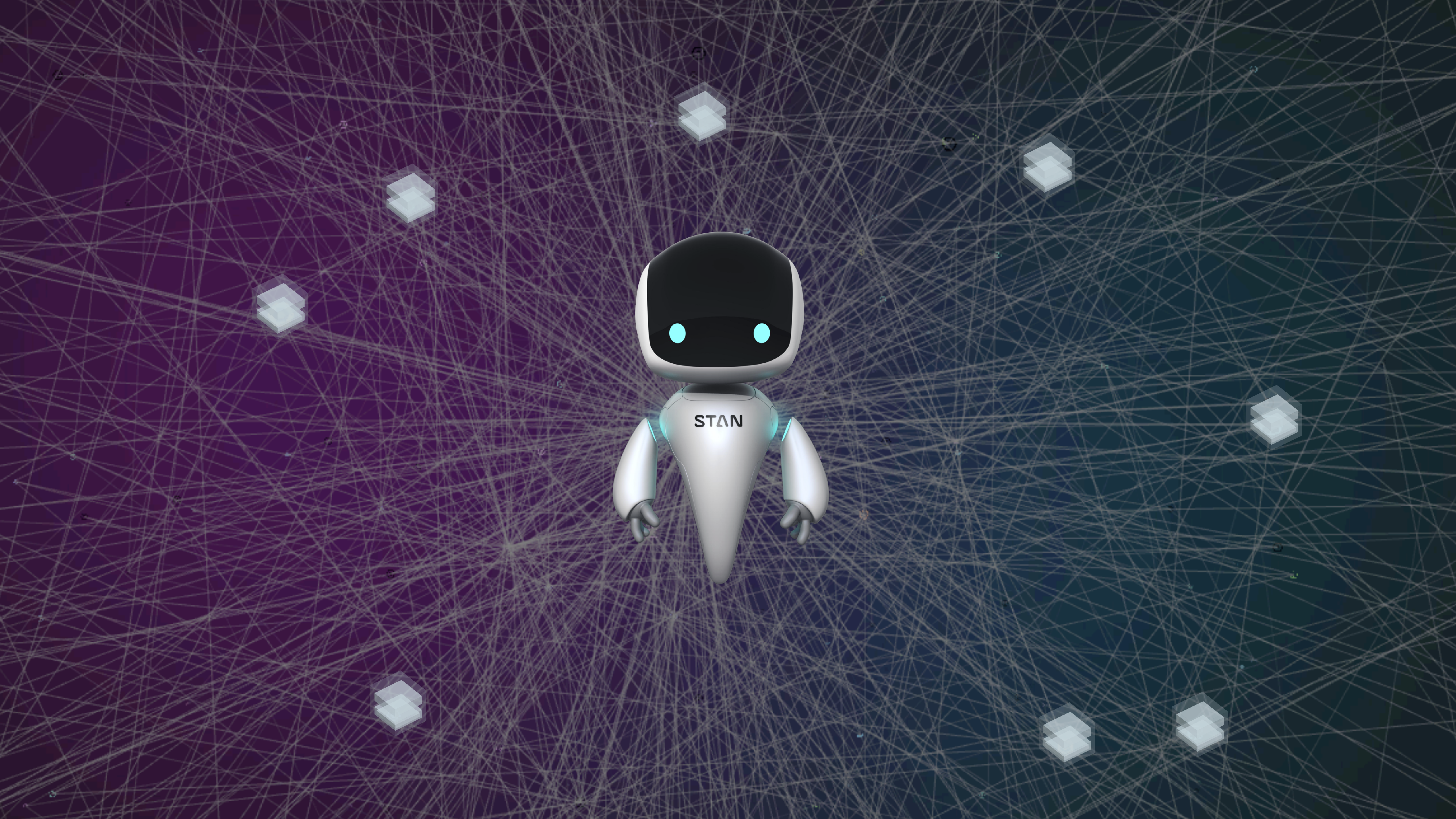
RECOGNITION

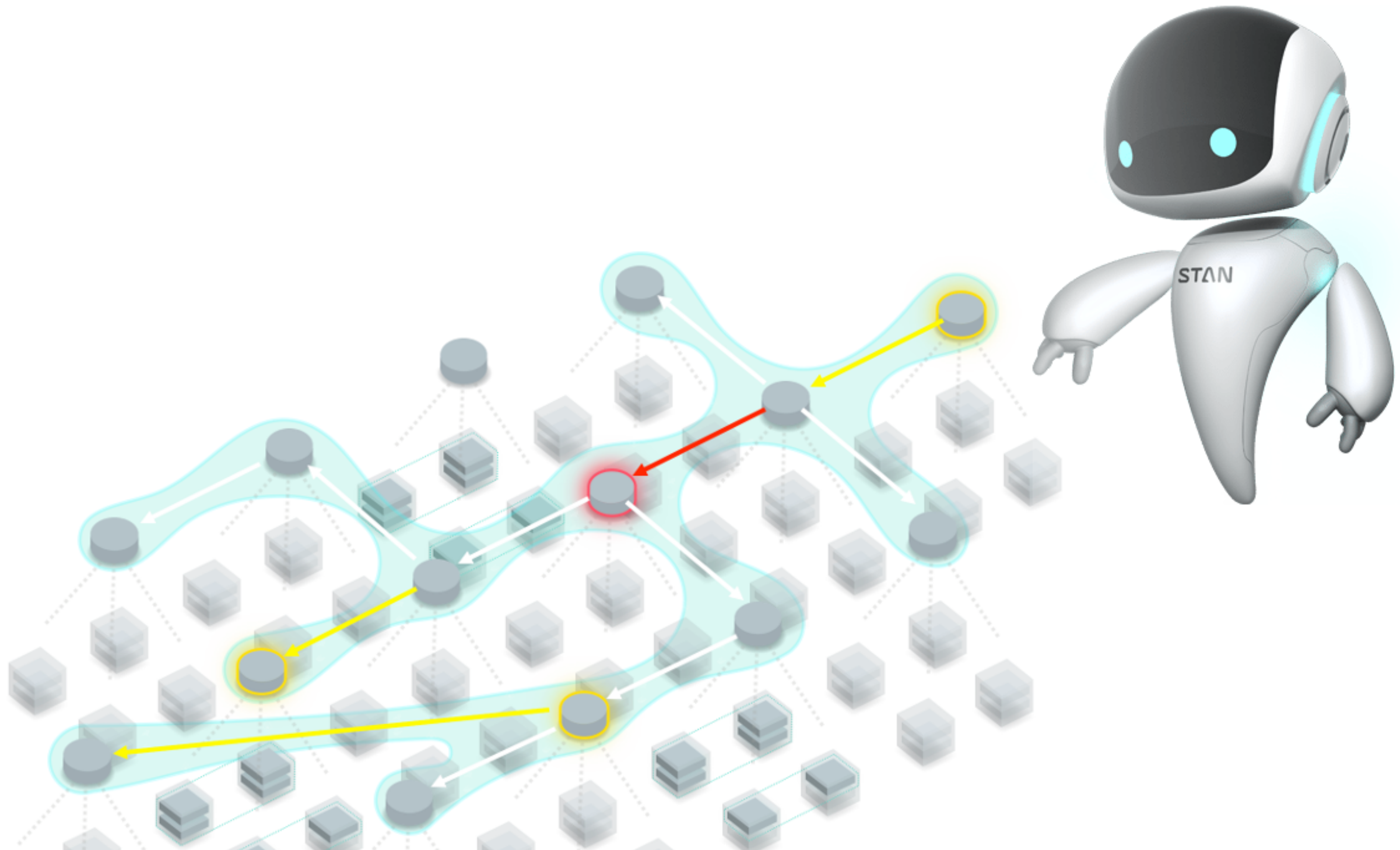


SUGGESTIVE

MATURITY









?

Filters ▾



Aug 07
Last hour

Map Comparison Table



gke-demo-cluster-default-pool-ef069a27-x8dq.c.peppy-vertex-158106.internal

Host **k8s-demo**

Open Dashboard



System

OS
Linux 4.14.127+ (amd64)

CPU
2 x Intel Xeon @ 2.20GHz

Memory
7.30 GiB

Max Open Files
760,681

Hostname
gke-demo-cluster-default-pool-ef069a27-x8dq

FQDN
gke-demo-cluster-default-pool-ef069a27-x8dq.c.peppy-vertex-158106.internal

Machine ID
dd4c9e0d66879e47cff4238cb90df604

Boot ID
f4f014ee-75c9-417e-83ca-7986ec360262

Started At
2019-06-23 07:04:57 (1mo 15d 44m)

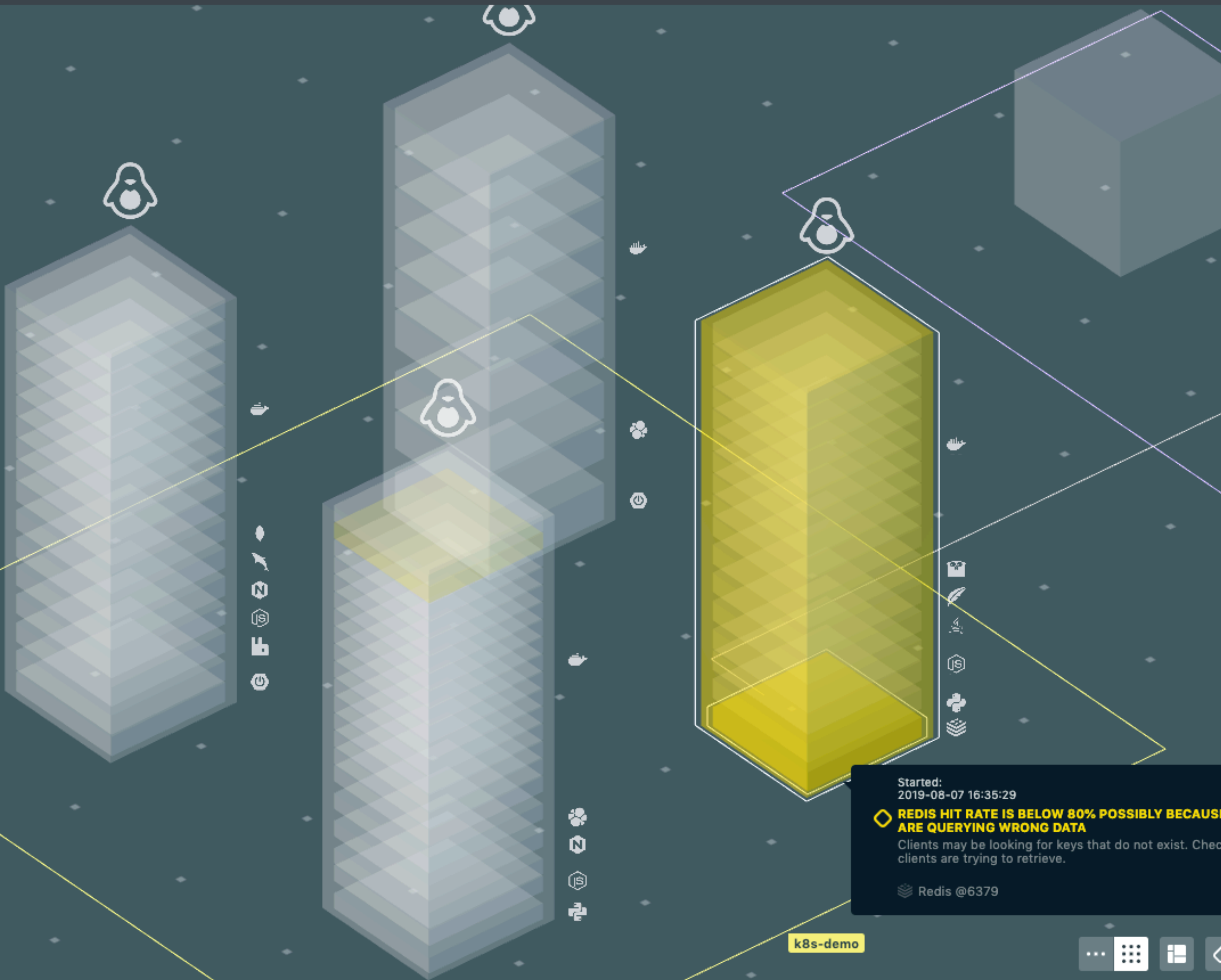
Interfaces (2)

GCE Instance

Kubernetes

Apache HTTPDs (1)

Docker Containers (10)



Started:
2019-08-07 16:35:29

REDIS HIT RATE IS BELOW 80% POSSIBLY BECAUSE ARE QUERYING WRONG DATA

Clients may be looking for keys that do not exist. Check clients are trying to retrieve.

Redis @6379

k8s-demo



All Services

Analyze Traces

Summary Dependencies Services Performance Error Messages Log Messages Infrastructure Configuration



All Services

Analyze Traces

Summary Dependencies Services Performance Error Messages Log Messages Infrastructure Configuration

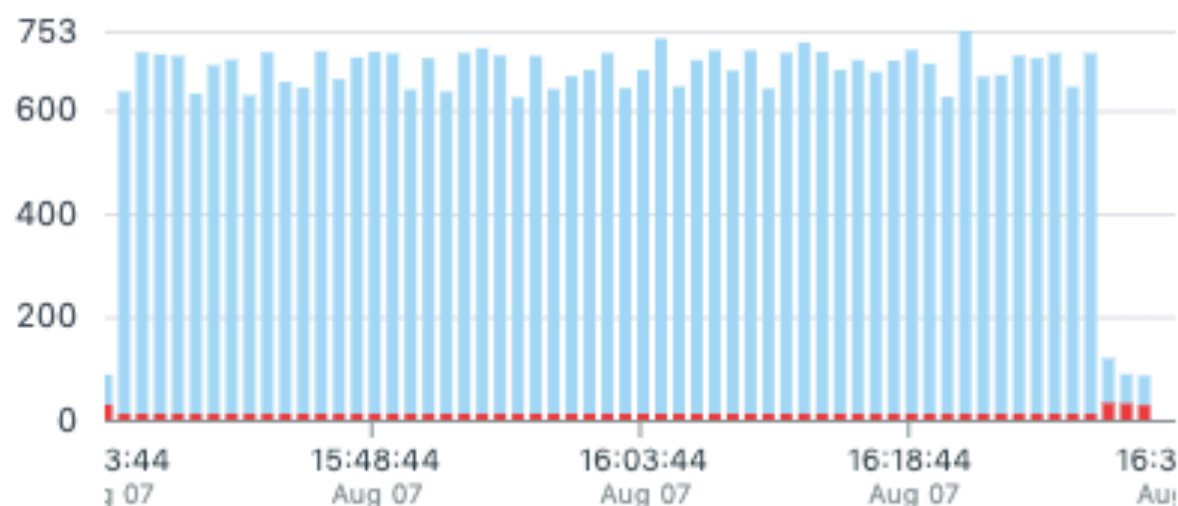
Inbound Calls
38,080

Error Rate
0.35%

Mean Latency
47ms

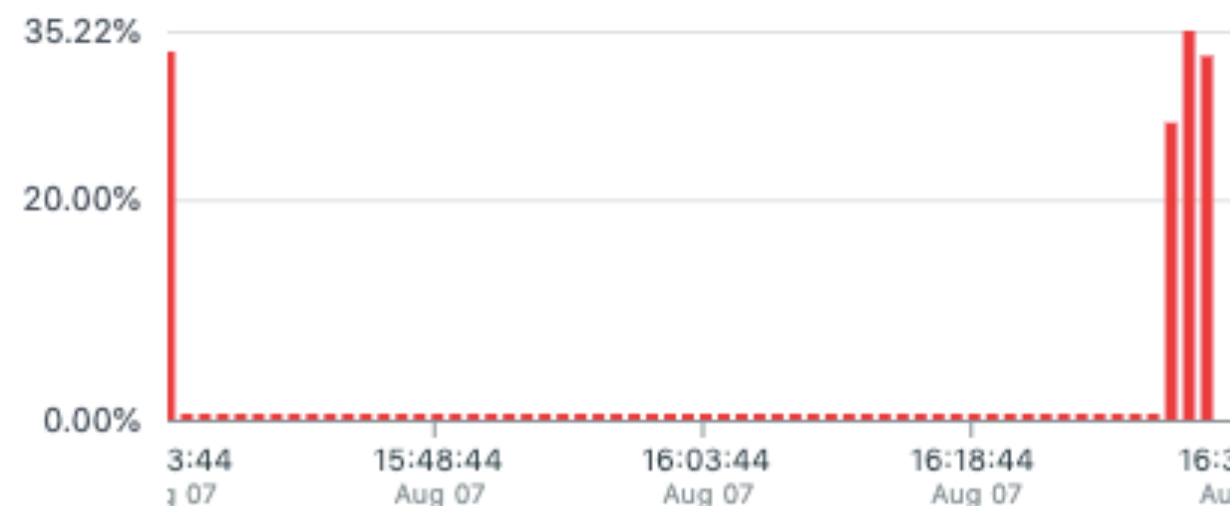
Calls

Calls Errors



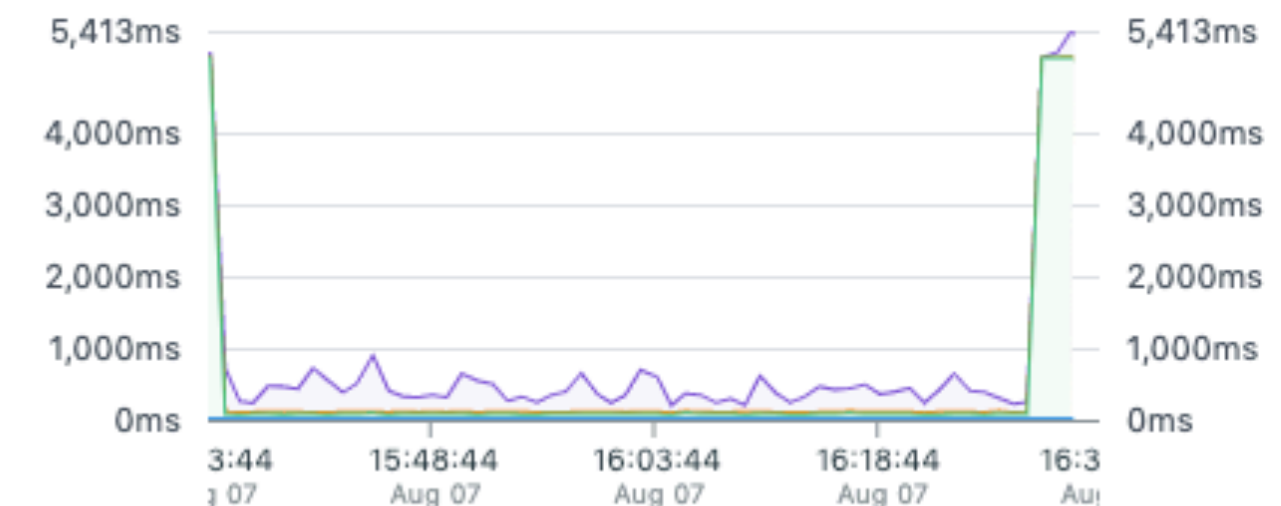
Errors

Errors



Latency

50th 90th 95th 99th Max Mean



Top Services

Latency Calls Errors

| | |
|--------------|-------|
| eum-frontend | 331ms |
| eum-shop | 327ms |
| cities | 96ms |
| shipping | 75ms |
| discount | 53ms |

View all services

Top Traces

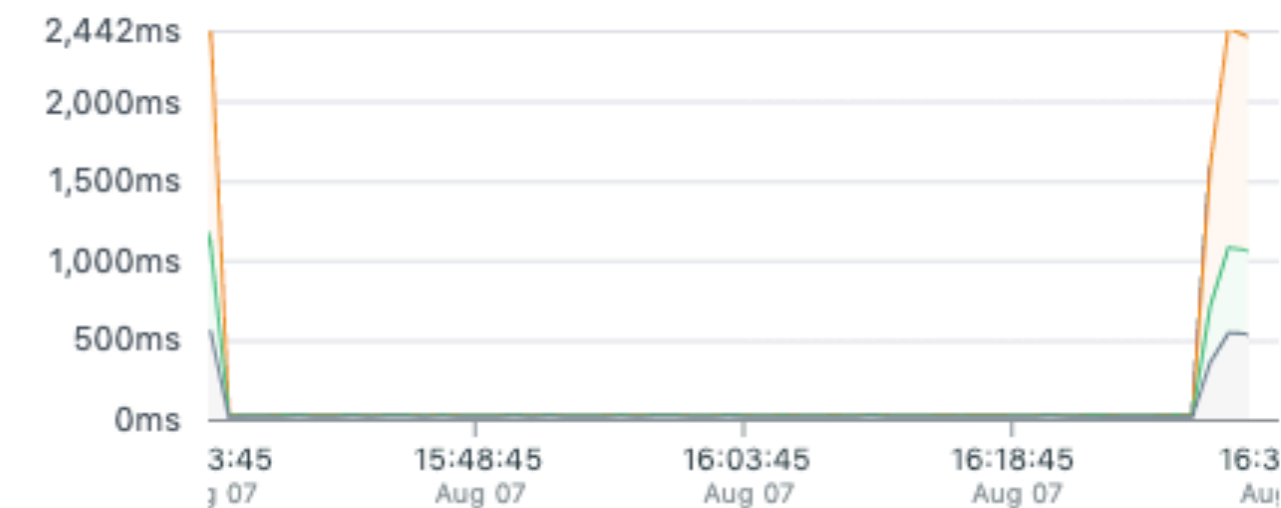
Latency Count Errors

| | |
|------------------------|-------|
| GET /:locale/shop | 331ms |
| GET /cities | 288ms |
| POST /pay | 66ms |
| GET /add/:id/:sku/:qty | 48ms |
| PUT /api | 47ms |

View all traces

Processing Time

Self Database Http Messaging Undefined



eum-shop HTTP Spring Boot

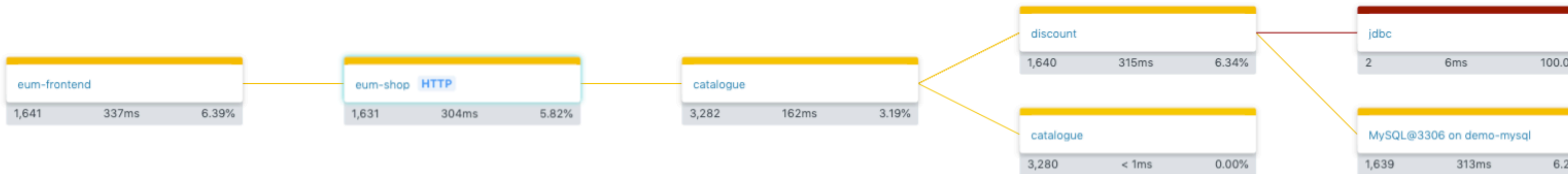
Analyze Traces

Explore K8s Service

3

Summary Flow Endpoints Performance Error Messages Log Messages Infrastructure

Calls Latency Errors





GET /en-US/shop

Trace ID: ddacccb8290a90e8a

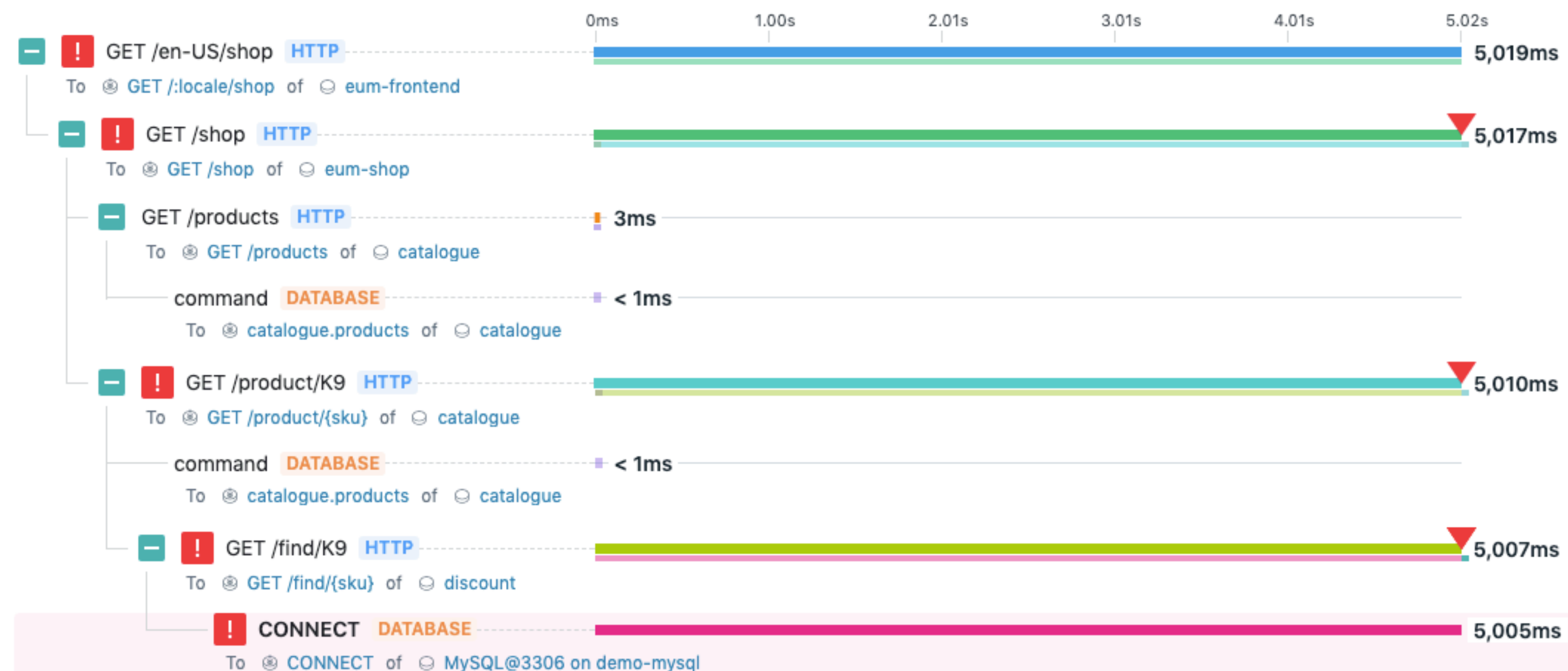


| | | | |
|--------------------------|--------------------|---------|---|
| eum-shop | GET /shop | 5,017ms | 1 |
| catalogue | GET /product/{sku} | 5,010ms | 1 |
| discount | GET /find/{sku} | 5,007ms | 1 |
| MySQL@3306 on demo-mysql | CONNECT | 5,005ms | 1 |

Prev 1/2 Next

Calls

Colorize by Endpoint Technology



Call Details

CONNECT DATABASE

Service

From discount

To CONNECT of MySQL@3306 on demo-mysql

Infrastructure

MySQL @3306

Caller Details

Connection

jdbc:mysql://10.128.0.6:3306/discountdb?createDatabaseIfNotExist=true

Error

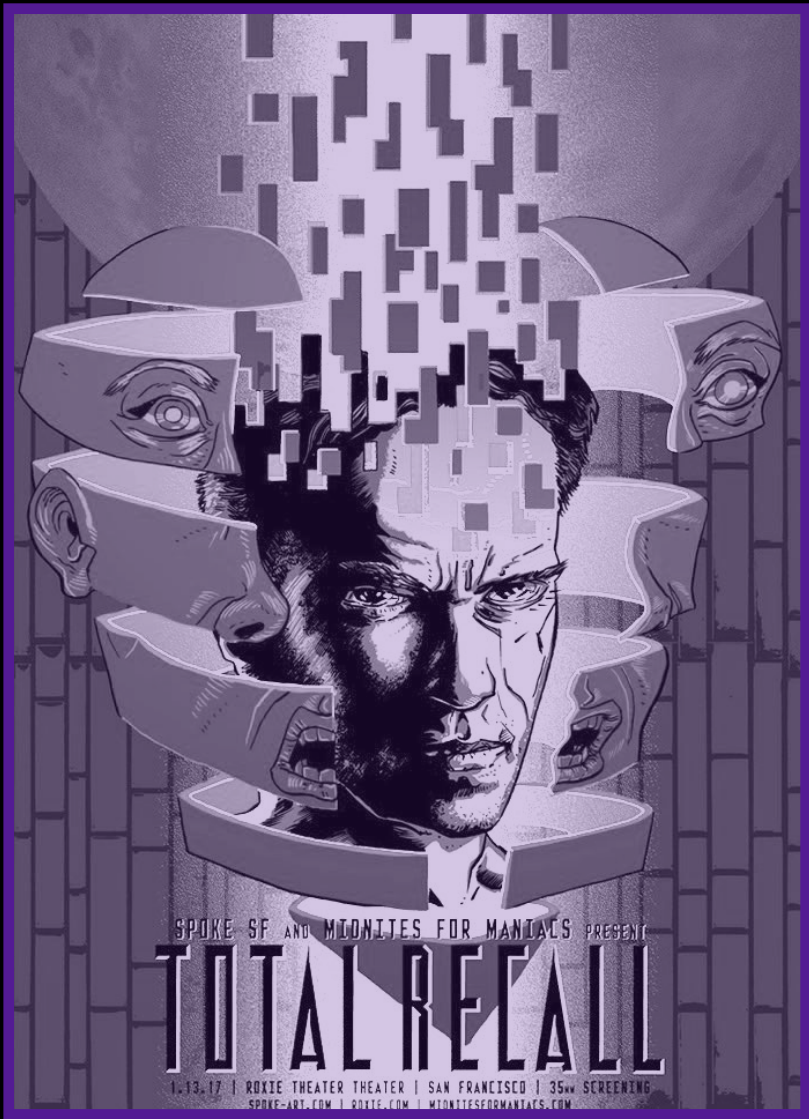
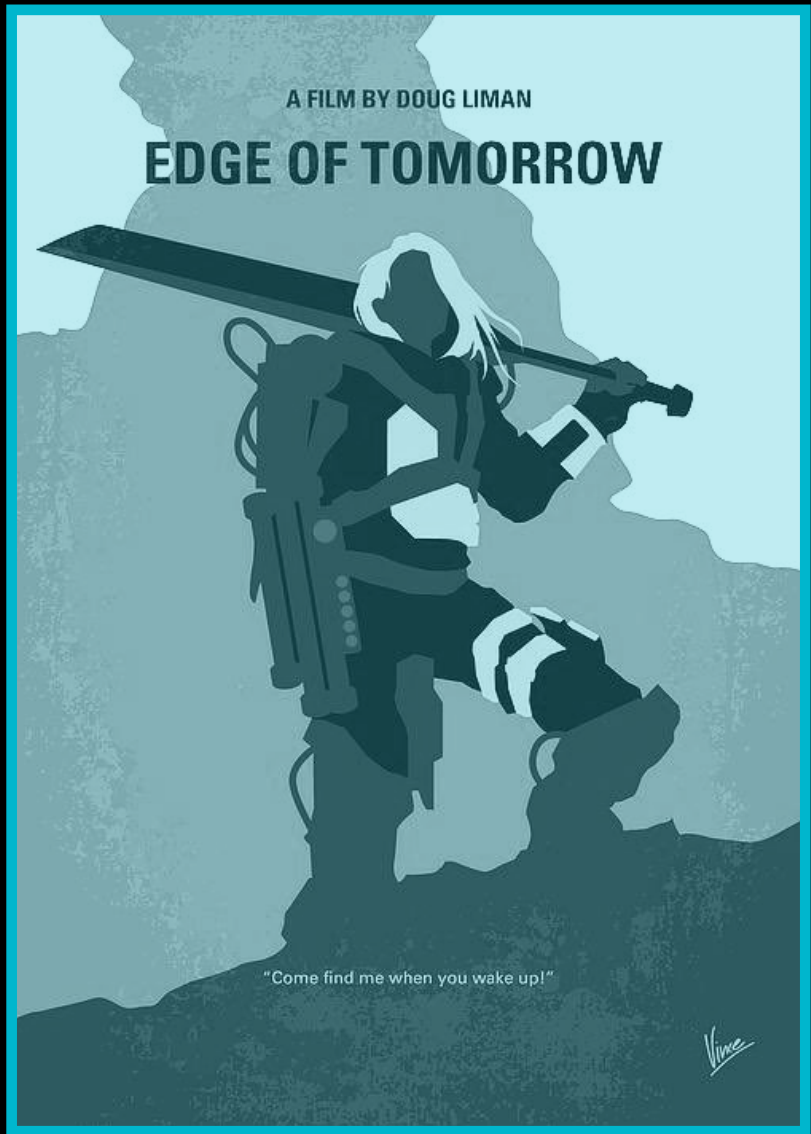
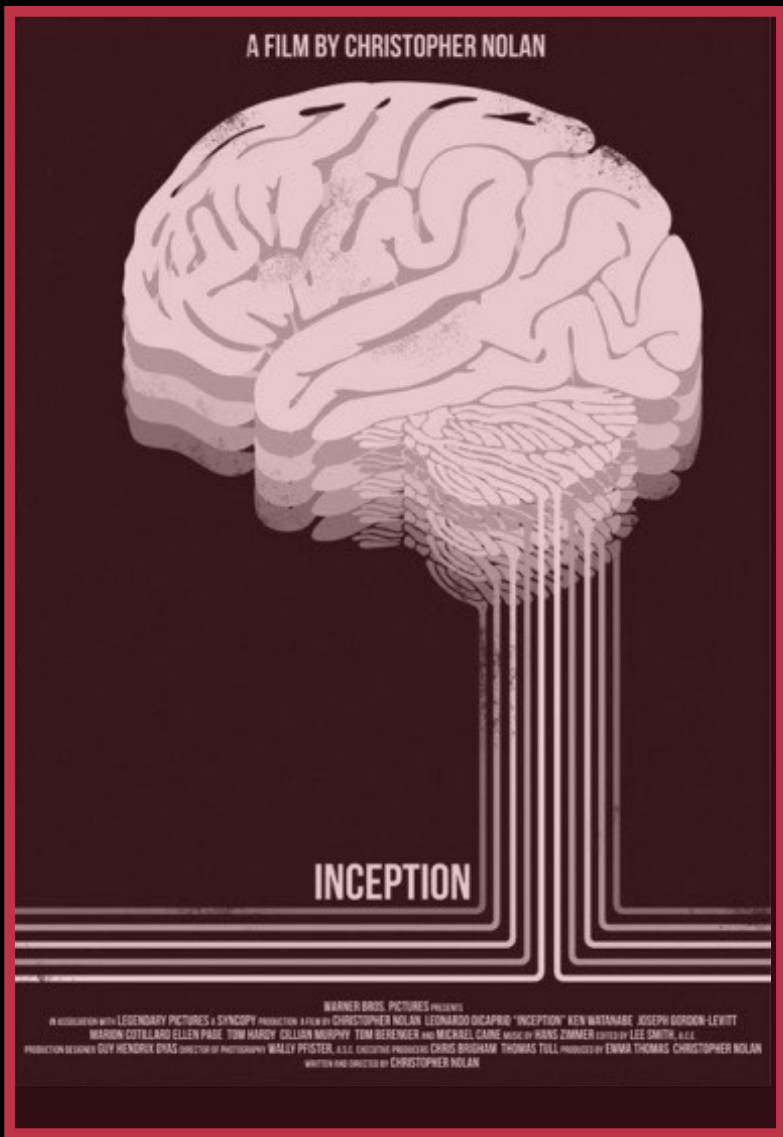
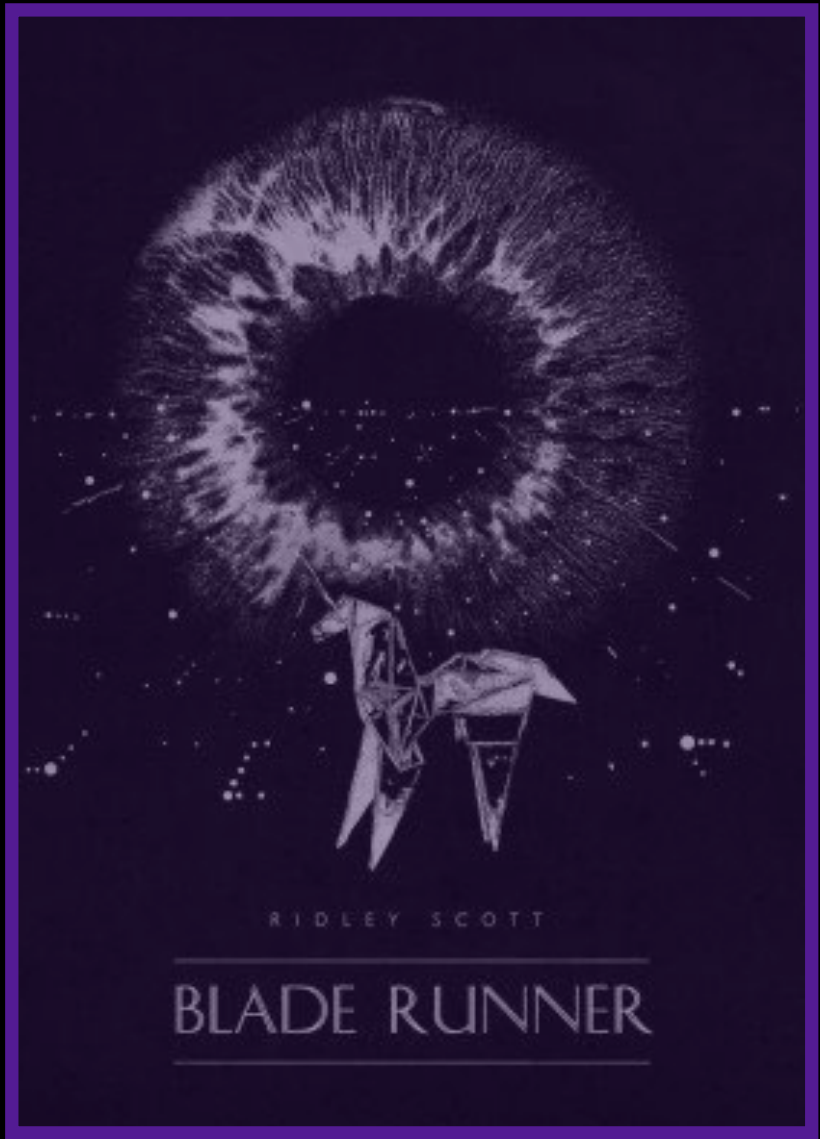
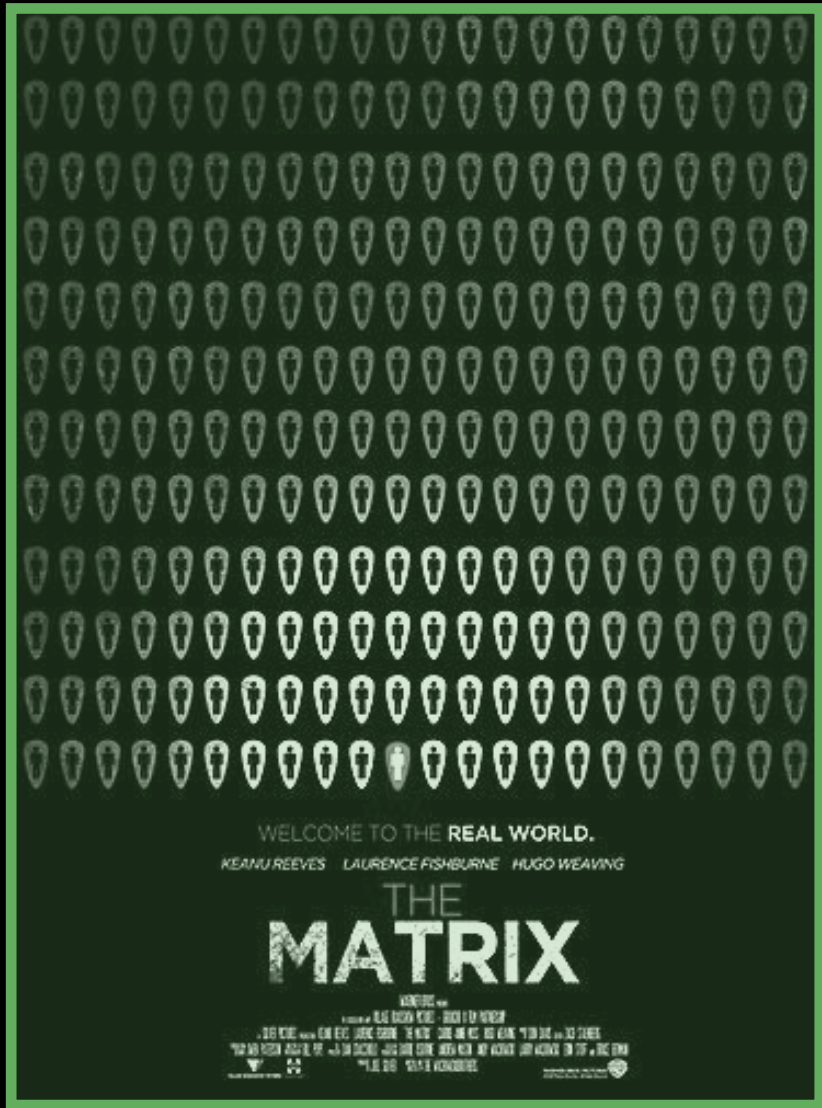
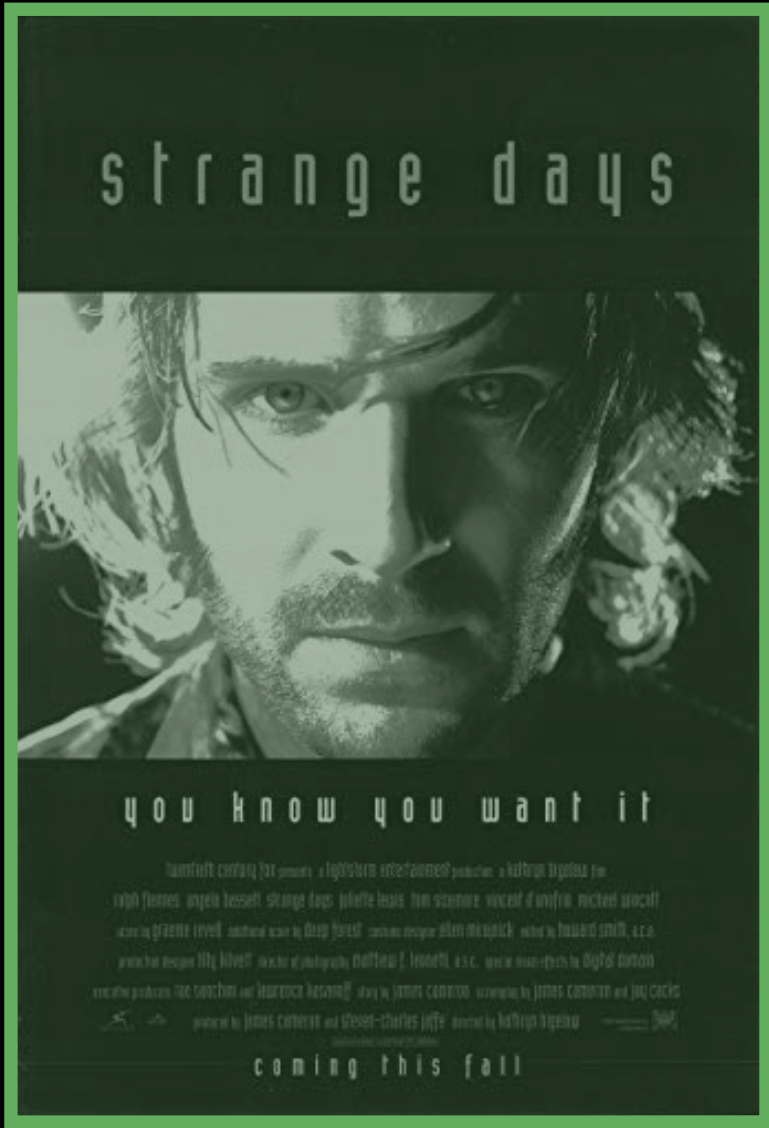
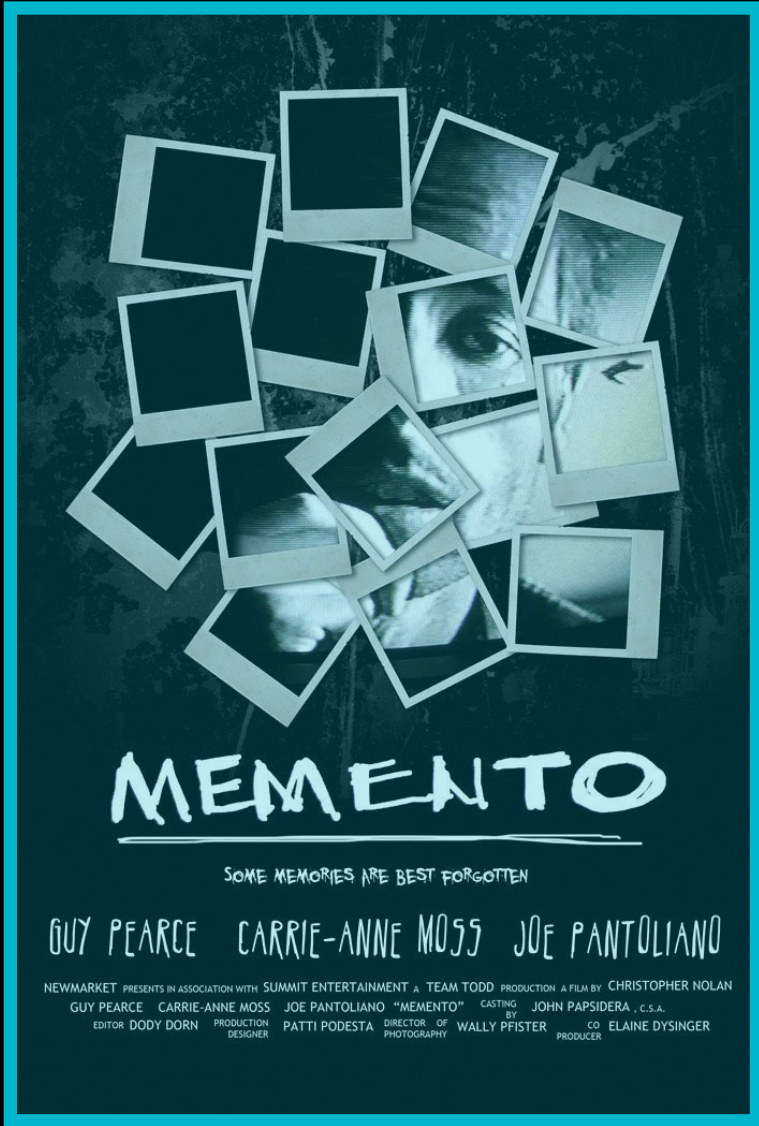
1 HikariPool-1 - Connection is not available, request timed out after 5004ms.

Statement

1 CONNECT

Caller Stack Trace

```
getConnection in com.zaxxer.hikari.HikariDataSource:95
getConnection in org.hibernate.engine.jdbc.connections.internal.DatasourceConnectionProviderImpl:35
obtainConnection in org.hibernate.internal.NonContextualJdbcConnectionAccess:35
acquireConnectionIfNeeded in org.hibernate.resource.jdbc.internal.LogicalConnectionManagedImpl:146
getPhysicalConnection in org.hibernate.resource.jdbc.internal.LogicalConnectionManagedImpl:146
connection in org.hibernate.engine.jdbc.internal.StatementPreparerImpl:47
doPrepare in org.hibernate.engine.jdbc.internal.StatementPreparerImpl:146
prepareStatement in org.hibernate.engine.jdbc.internal.StatementPreparerImpl:146
prepareQueryStatement in org.hibernate.engine.jdbc.internal.StatementPreparerImpl:146
prepareQueryStatement in org.hibernate.loader.Loader:1984
executeQueryStatement in org.hibernate.loader.Loader:1914
doQuery in org.hibernate.loader.Loader:937
doQueryAndInitializeNonLazyCollections in org.hibernate.loader.Loader:340
doList in org.hibernate.loader.Loader:2689
listIgnoreQueryCache in org.hibernate.loader.Loader:2506
list in org.hibernate.loader.Loader:2501
list in org.hibernate.loader.hql.QueryLoader:504
list in org.hibernate.hql.internal.ast.QueryTranslatorImpl:395
performList in org.hibernate.engine.query.spi.HQLQueryPlan:220
list in org.hibernate.internal.SessionImpl:1508
doList in org.hibernate.query.internal.AbstractProducedQuery:1537
list in org.hibernate.query.internal.AbstractProducedQuery:1505
```



FICTION TO FUTURE



TIME MACHINE IMMERSIVE EXPERIENCES
[SOFTWARE MEMORIES & SIMULATED WORLDS]

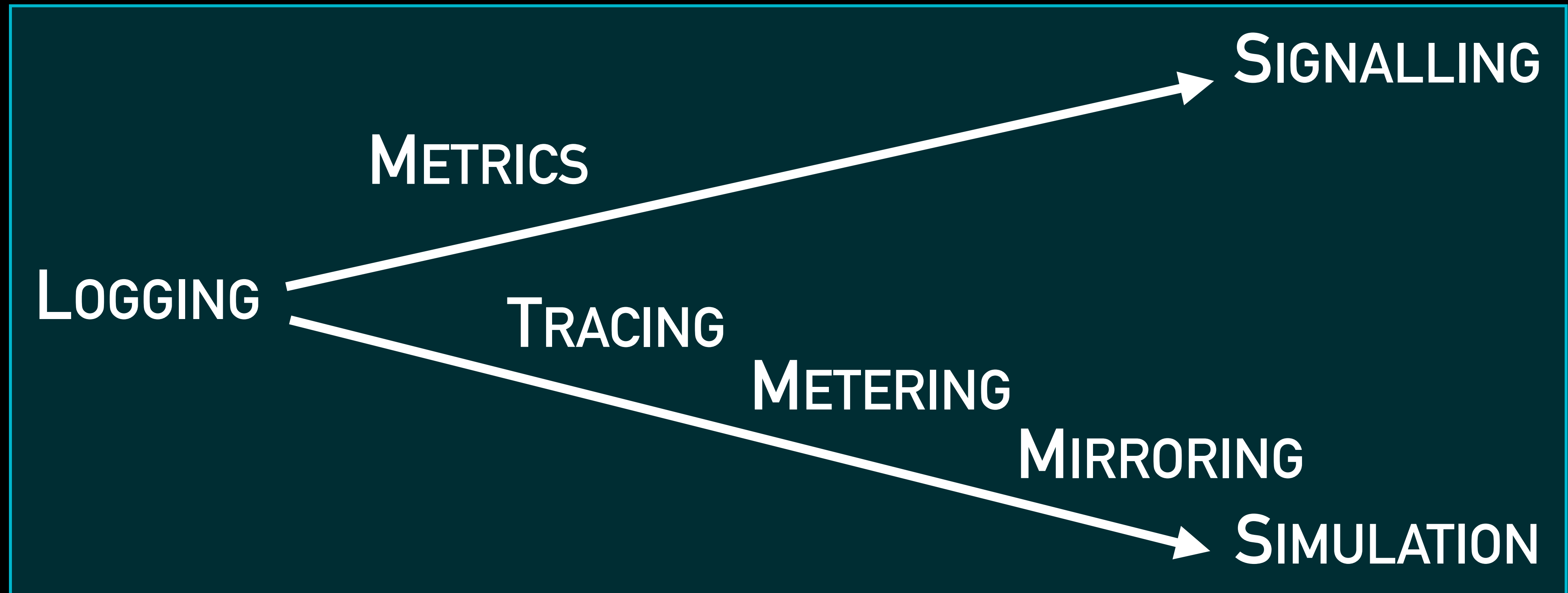


MAN-MACHINE COOPERATION
[CONVERSATIONAL DIALOGS]

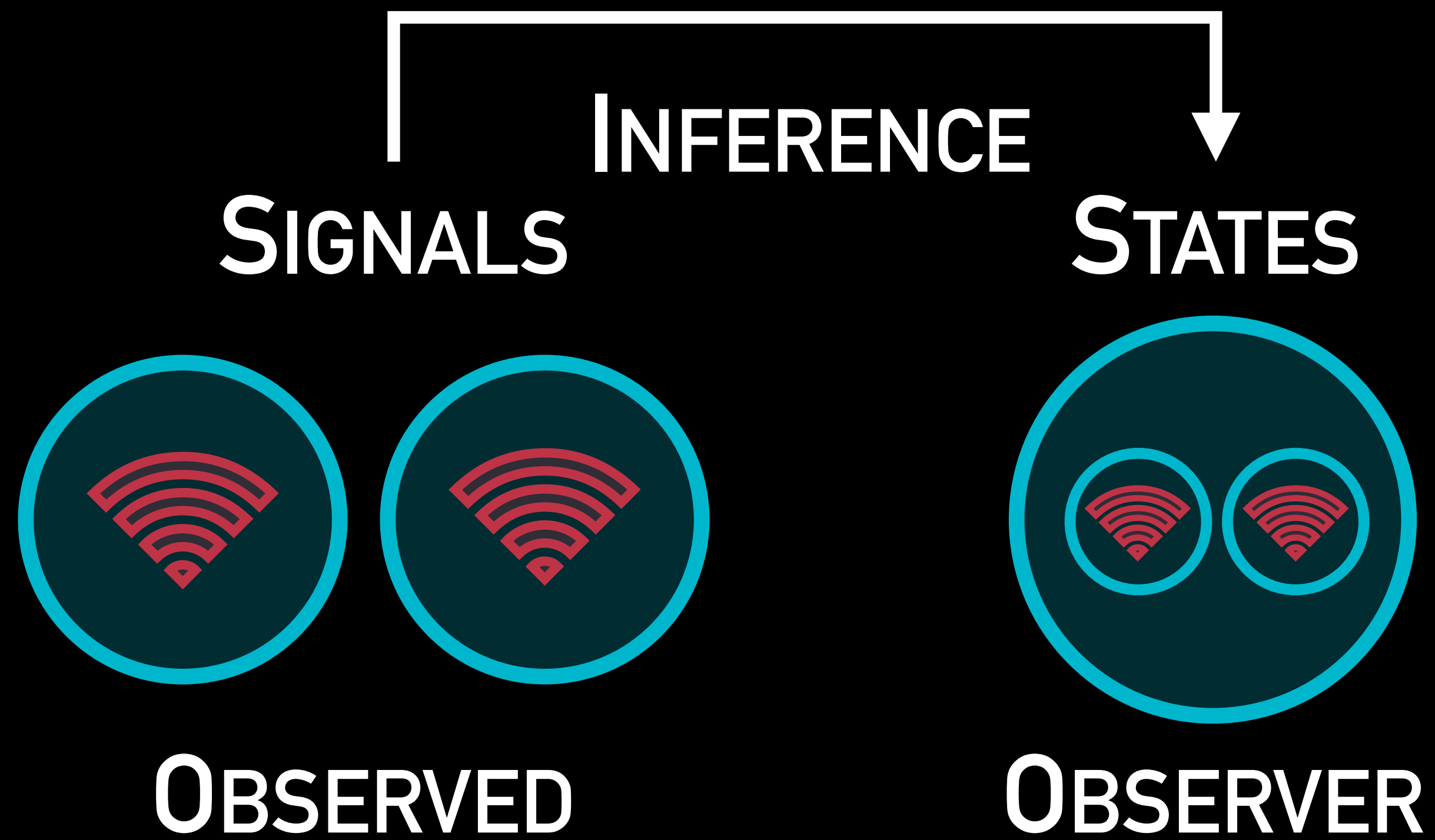


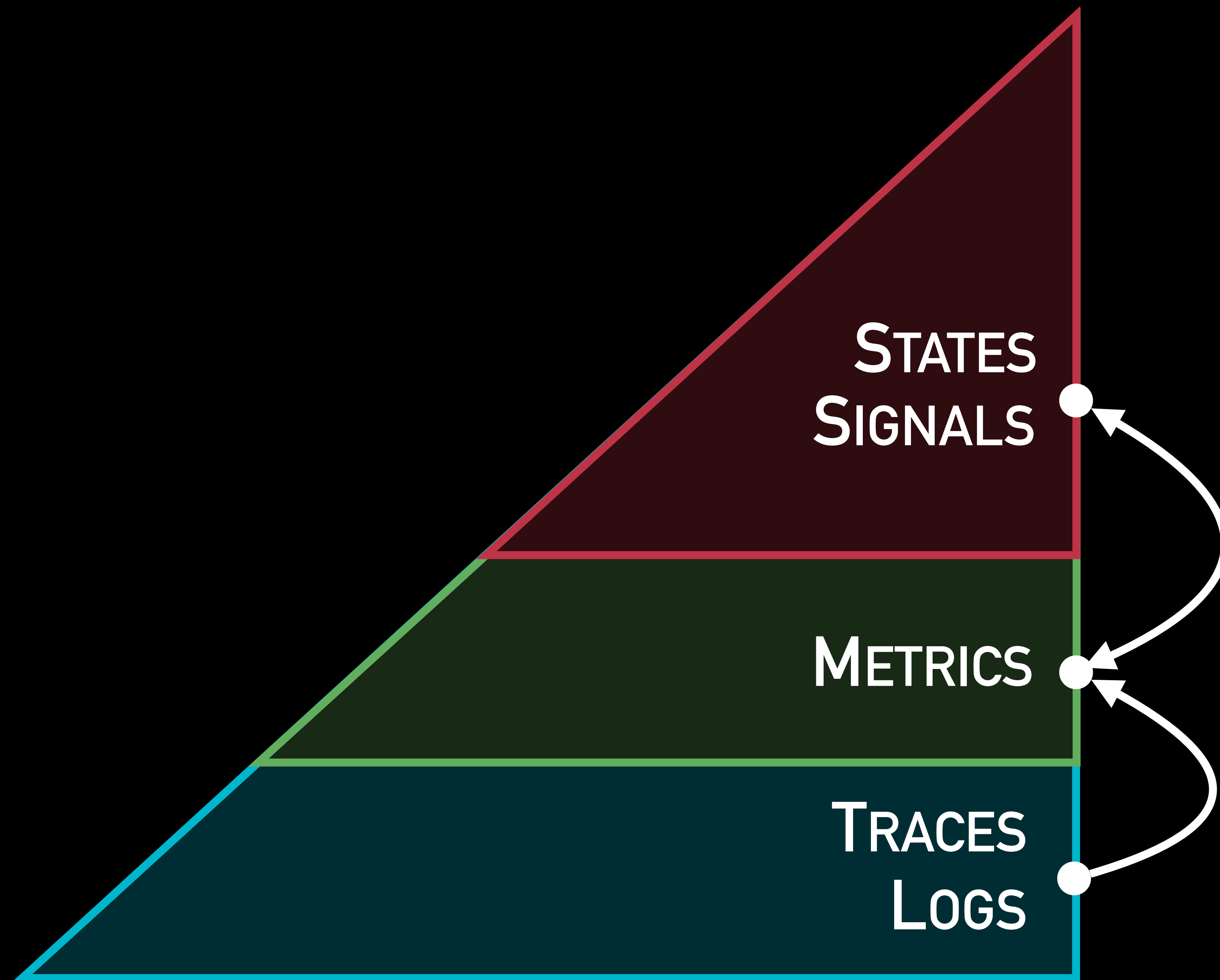
BEHAVIORAL MODELING & MANIPULATION
[SYSTEM DYNAMICS & ADAPTIVE CONTROL]

OPERATIONAL · EFFECTIVENESS · DEVOPS · HUMAN



RECONSTRUCTION · EXPLORATIVE · DEVELOPER · MACHINE





EXPANSIVE
SEARCH

EFFICIENT
SHIFTS

EFFECTIVE
SUGGESTIVE

DIAGNOSTICS
PAST

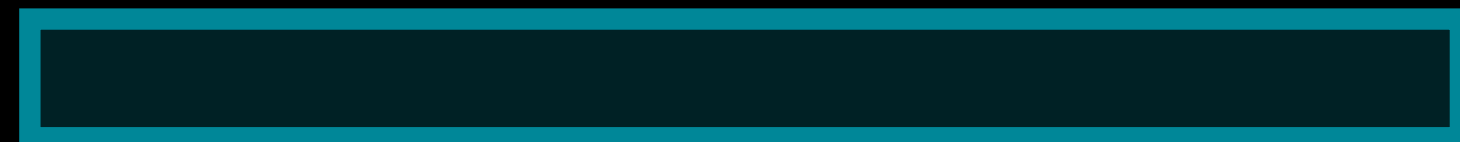
DASHBOARD
PRESENT

DETECTION
PREDICTION

RETROSPECT
SUCCESSION

RELATABLE
SITUATION

RELEVANT
SIGNIFICANCE



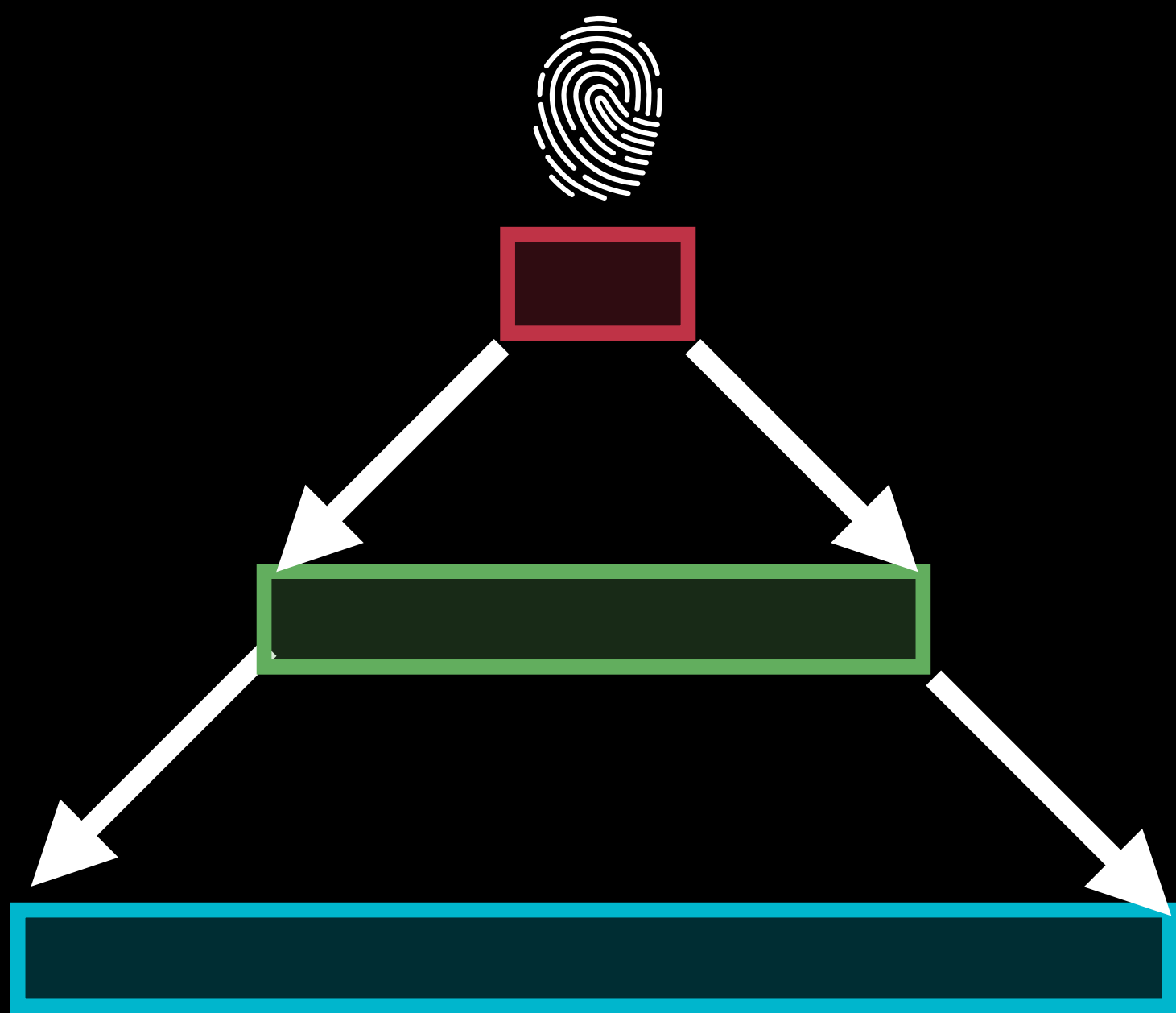
LOGGING
TRACING



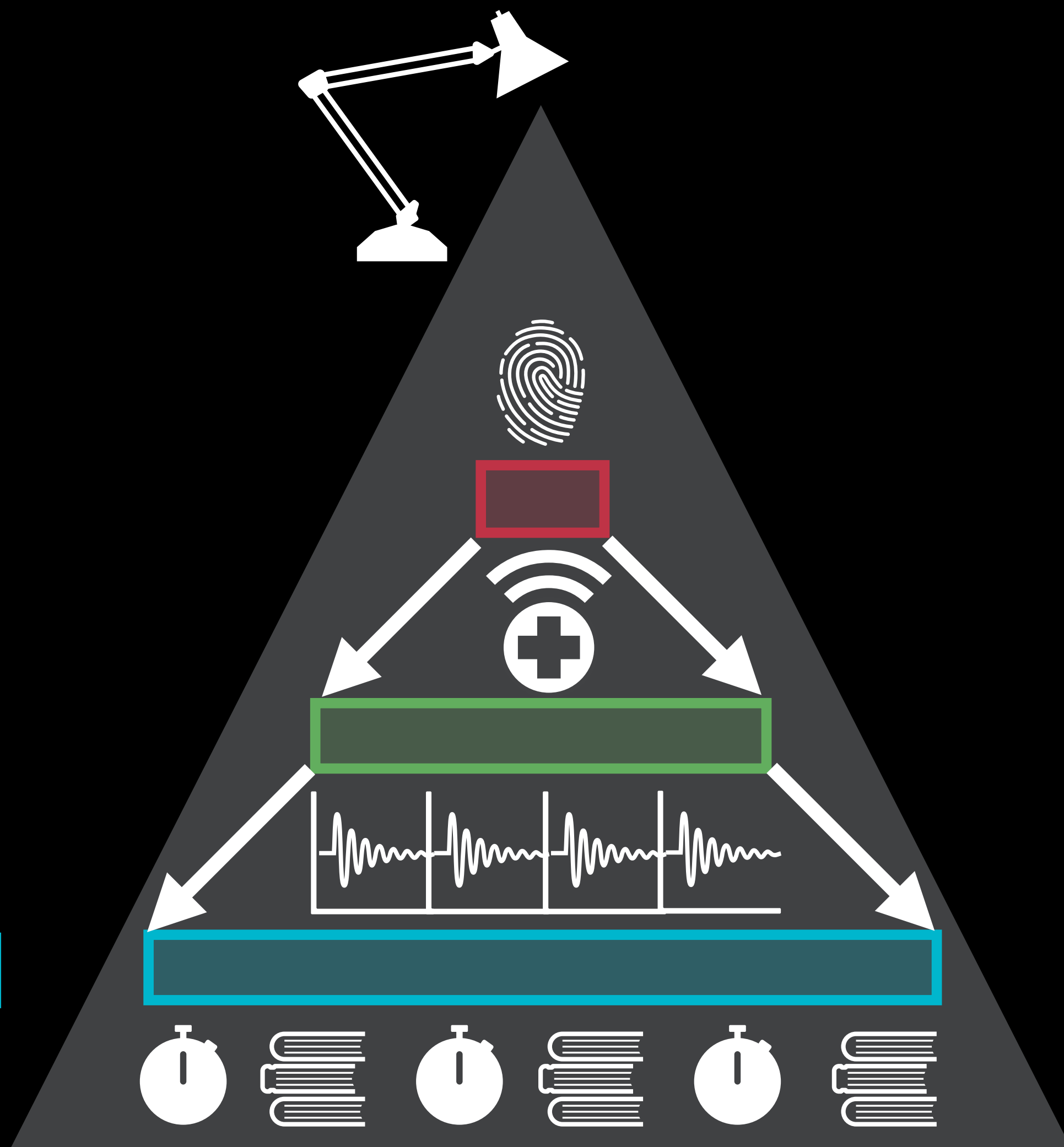
METRICS



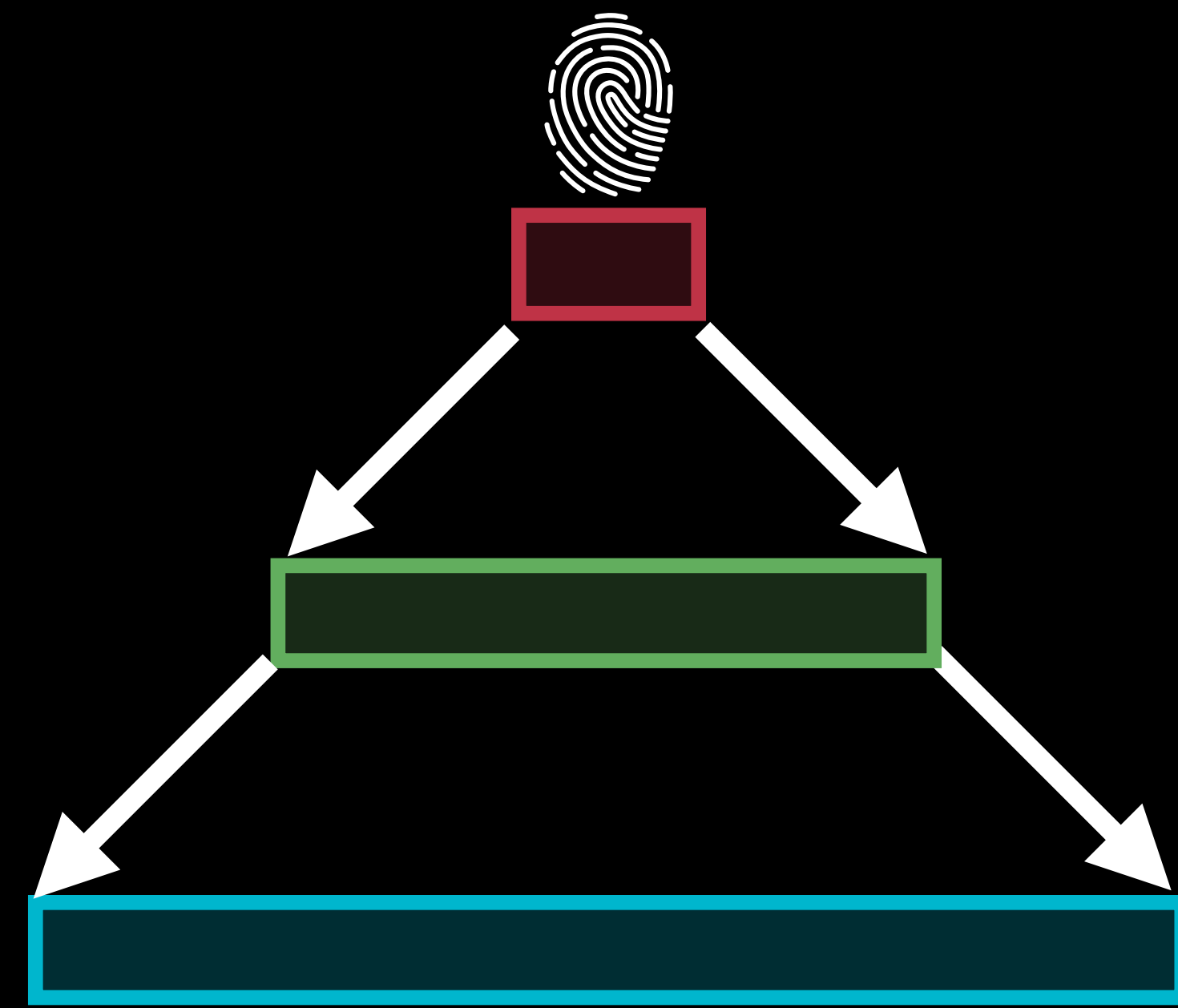
STATES
SIGNALS



PREDICTED



UNEXPECTED



PREDICTED

TYRELL

“IF WE GIFT THEM WITH A PAST,
WE CREATE A CUSHION OR A
PILLOW FOR THEIR EMOTIONS,
AND CONSEQUENTLY,
WE CAN CONTROL THEM BETTER.”



DECKARD

“MEMORIES!
YOU'RE TALKING
ABOUT MEMORIES!”