



DEMYSTIFYING POWER OF ARTIFICIAL INTELLIGENCE ENABLED IOT

UMESH THOTA //AUTHBASE

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TODAY ?

IOT ?

INTELLIGENCE ?

SIMPLICITY:

//STACK

//EXPERIMENT

//COMPUTE

//DATA

//ACCURACY

//RESEARCH

//PROBLEM



///STACK



// COMPUTE



CLOUD MACHINE LEARNING SERVICES COMPARISON

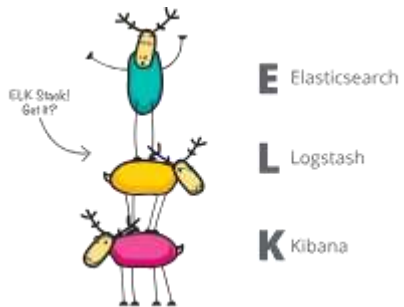
	Amazon ML	Amazon SageMaker*	Azure ML Studio	Google Prediction API	Google ML Engine**
Classification	✓	✓	✓	✓	✓
Regression	✓	✓	✓	✓	✓
Clustering	✗	✓	✓	✗	✓
Anomaly detection	✗	✓	✓	✗	✓
Recommendation	✗	✓	✓	✗	✓
Ranking	✗	✓	✓	✗	✓
Algorithms	unknown	10 built-in + custom available	100+ algorithms and modules	unknown	TensorFlow-based



// **EXPERIMENT**

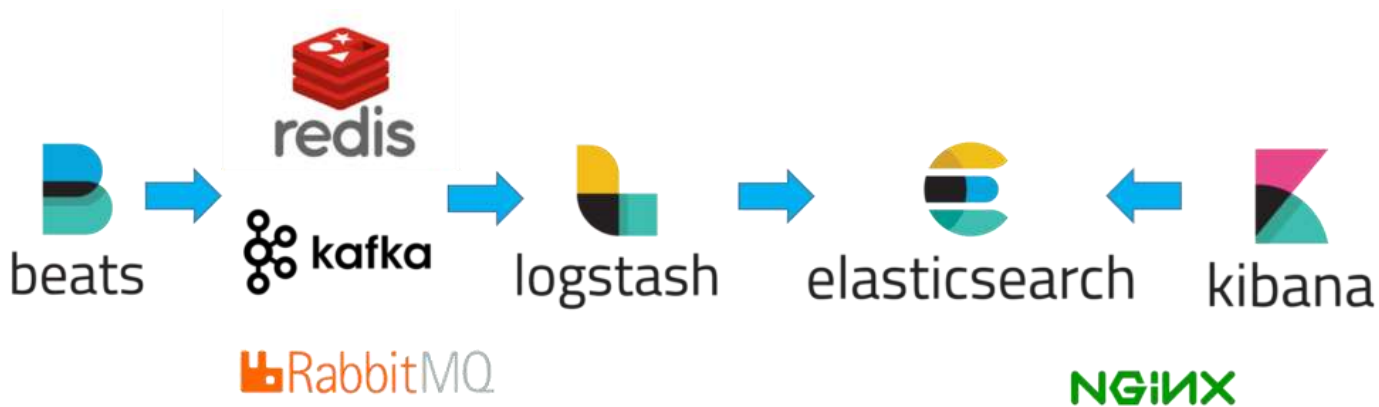


// EXPERIMENT STACK





// EXPERIMENT STACK



Data
Collection

Buffering

Data
Aggregation
& Processing

Indexing &
storage

Analysis &
visualization

—
//DATA



QUANTIFIABLE DATA

QUANTITY

QUALITY

// EXPERIMENT

DATA



RECURRING

OPERATING PARAMETERS

// ACCURACY



FALSE POSITIVES
FALSE NEGATIVES

// EXPERIMENT ACCURACY

CLEAN DATA
RANKING
SEEDING



// EXPERIMENT RESULTS

USECASES
PREDICTION
AUTOMATION



//RESEARCH



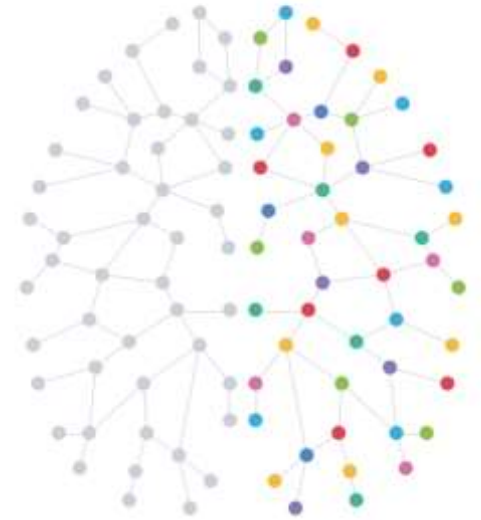
Building
Adapting
Converting

// PROBLEM



Model-Based Machine Learning

Click for legend



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