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## Pragmatic Al

An introduction




The new buzz word
Over a 100 MOOCs offering AI certificates
AI frameworks that make AI application development purportedly as easy as developing a VB app

Explosion of Python libraries that anyone can use
Use and abuse AI for everything


## State of Al

Crowded, cluttered and cacaphonous


## Choices \& complexity

So many techniques, so little time

- Different approaches to problem defintion
- Multiple approaches to solve a problem
- Solution = cocktail of techniques
- Hundreds of canned algorithms
- Needs deep skills in
- Math
- Statistics
- Computer science




Data, security, visualization, job management


Extend

APIs, problem classes, industries

## A Way Out

In the hunt for the right tool for the job

Analyse problem
Study data
Visualize data
Decide if it's not an optimization problem
Choose broad approach or approaches
Deep evaluate pre-built libraries for fit
Roll our own when necessary


## First Principles Approach

"A line is a breadthless length"

## Structure



Equipment Condition



Telecom


Oil \& Gas


Controls


## The Company

Democratize AI

## The Company (Contd.)



To bring Artificial Intelligence and Machine Learning to the masses


## $\sqrt{3}$ Akara Technologies

- Software products and services for the Oil \& Gas industry
- Based in Dubai, UAE


## Covalensedigital

- Software products and services for the Telecom industry
- Based in Bangalore, India




## Aspen



## Highlights

Open interface facilitates rapid extensibility by internal and third-party teams

- Native services such as security, file, database, learning, data quality, replication allows third parties to focus on business solutions leading to a market place ecosystem
- Decoupled architecture allows distributed processing
- Cluster aware components for availability and load balancing
- Open-source dependencies makes the platform cost-effective
- Toolbox approach allows for mixing and matching capabilities


## Smart Ticketing \& Social Media Analysis (STSMA)



## Operational State Detection



- Rotary Drilling
- Slide Drilling
- In Slips
- Reaming
- Pump In
- Rotating In
- Trip In
- Back Reaming
- Pump Out


## Churn Prediction




## Engagement / partnership / collaboration



Step 1

- Problem definition

Data

- Model development


Step 2

- Demonstrate PoC
- Commercial agreement
- Deploy on site


Step 3

- Improve model
- Integrate with data sources
- Go to Production

Step 4


- Support solution
- Monitor model performance
- Tweak/update model as needed


