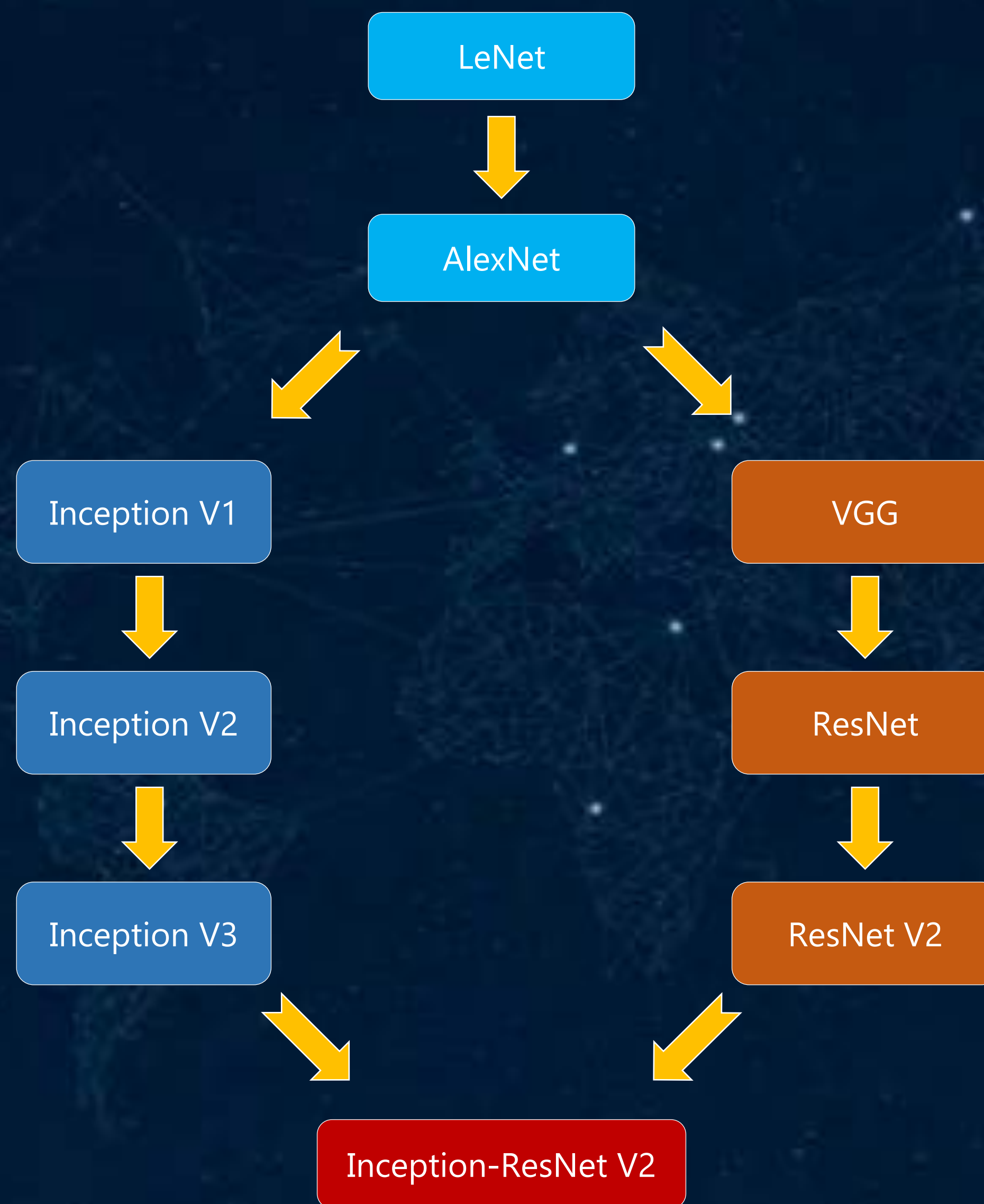


平台改变计算机视觉

林亦宁

七牛云高级专家
七牛AI实验室联合创始人



Caffe



theano

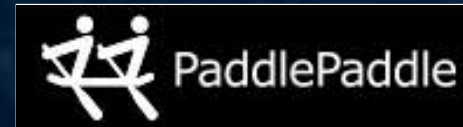
Caffe



theano

dmlc
mxnet

PYTORCH



Microsoft
CNTK

Caffe



theano

dmlc
mxnet

PYTORCH



Microsoft
CNTK

Lasagne

DSSTNE

DL4J
DEEPLARNING4J

K



这是最坏的时代 这是最好的时代



Mobile —> 富媒体时代



Connect





每天超过10亿图像上传



超过万亿小时的音视频存储



What are they?

内容审核团队

运营分析团队

AI?

Content

分类	描述
检测	搜索
分割	分析
跟踪	...



—————> 色情 0.001
—————> 性感 0.998
—————> 正常 0.001



特征 id1 戴眼镜 性别: 男 年龄: 33 颜值: ??

场景: 户外 / 景点 / 雪山

审查: 非色情 非暴力 很健康



“C罗正在带球突破，后有球员追逐”



场景一 00:00:00-00:01:05

描述: 事件1-XXXX

事件2-XXXX

人物出现:id1, id2

场景二

...

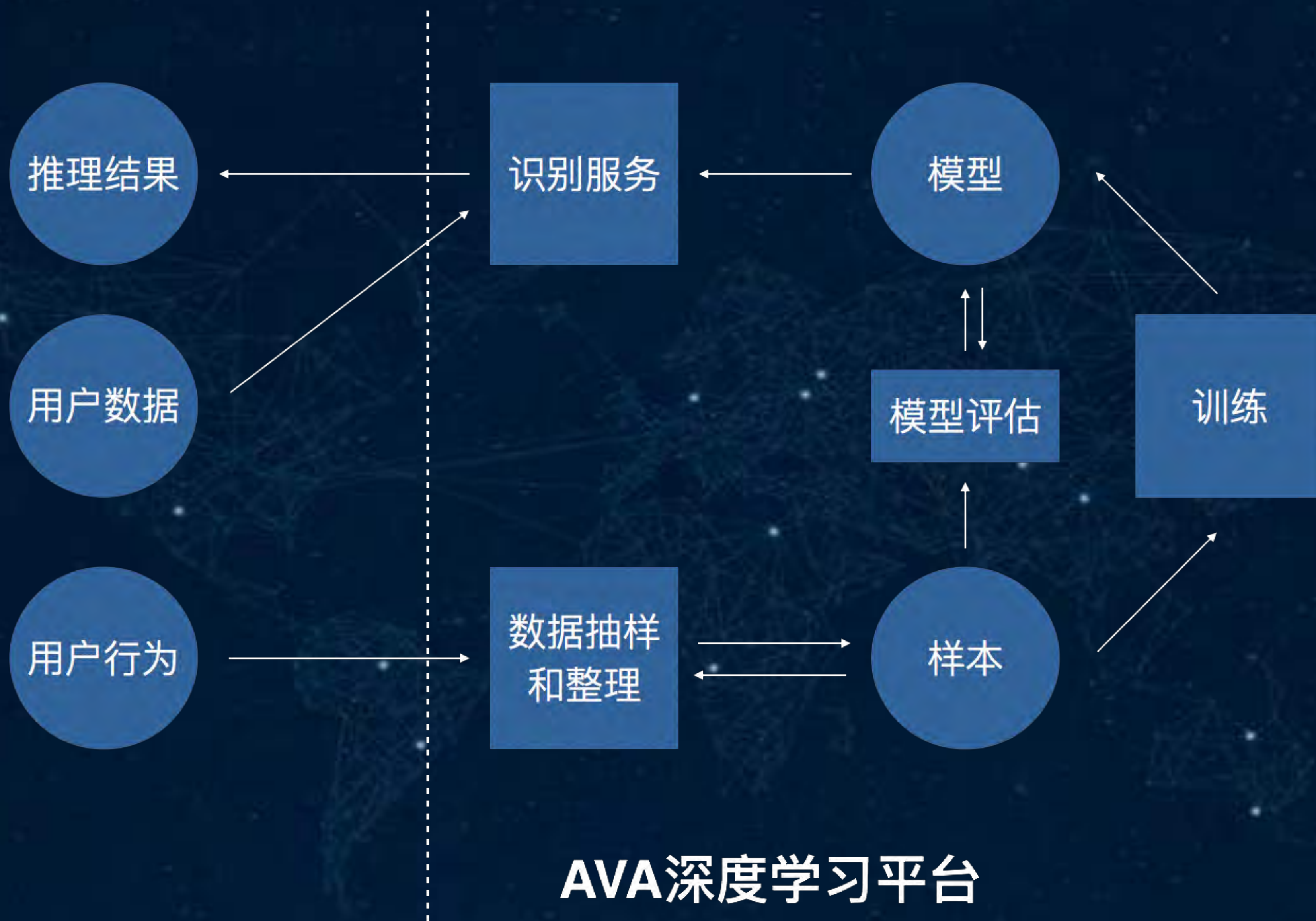
视频结构化



零售业





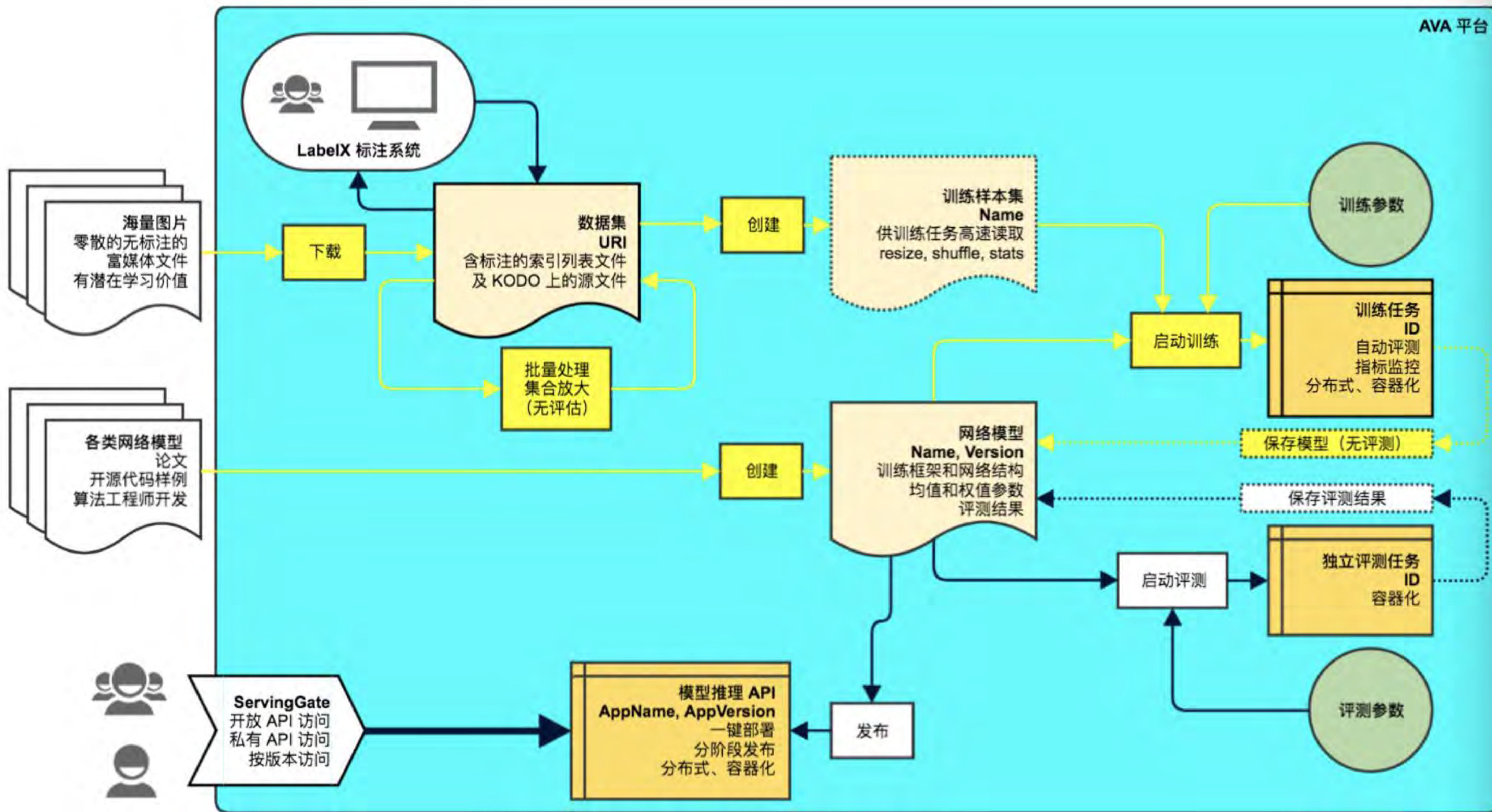


Application	Personal Remote Auth
Module / API	Face Recognition
Templet	Detection, Classification, Segmentation
Modular	Algorithms(AtNet/AtServing Image)
Tool Set	LabelX AtFlow
Framework-Infrastructure	AtNet(Job) AtServing(Service)



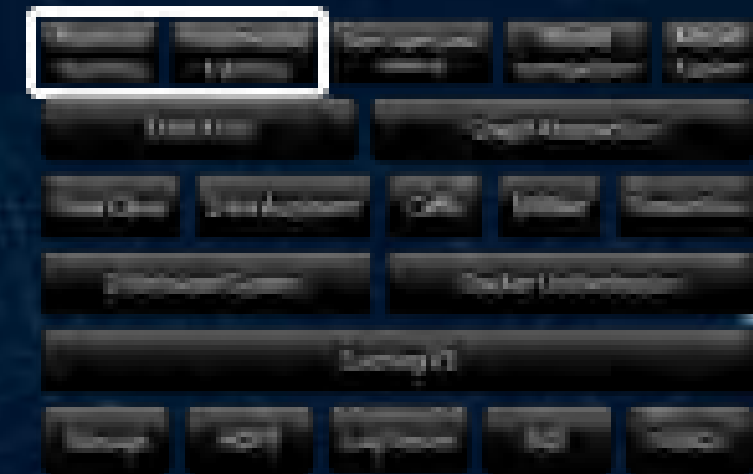
AVA 弹性深度学习平台



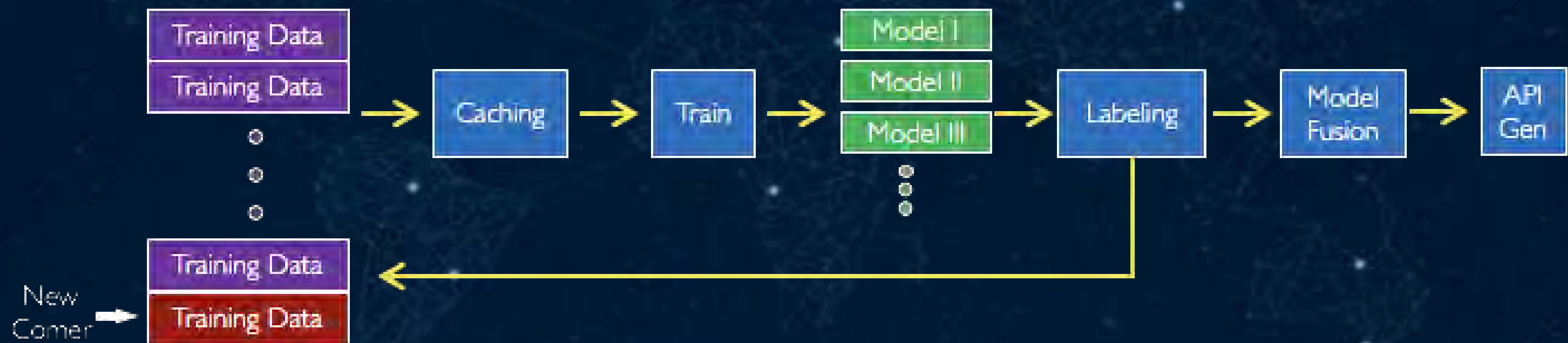


Building a DL platform

Iterative & Incremental Training

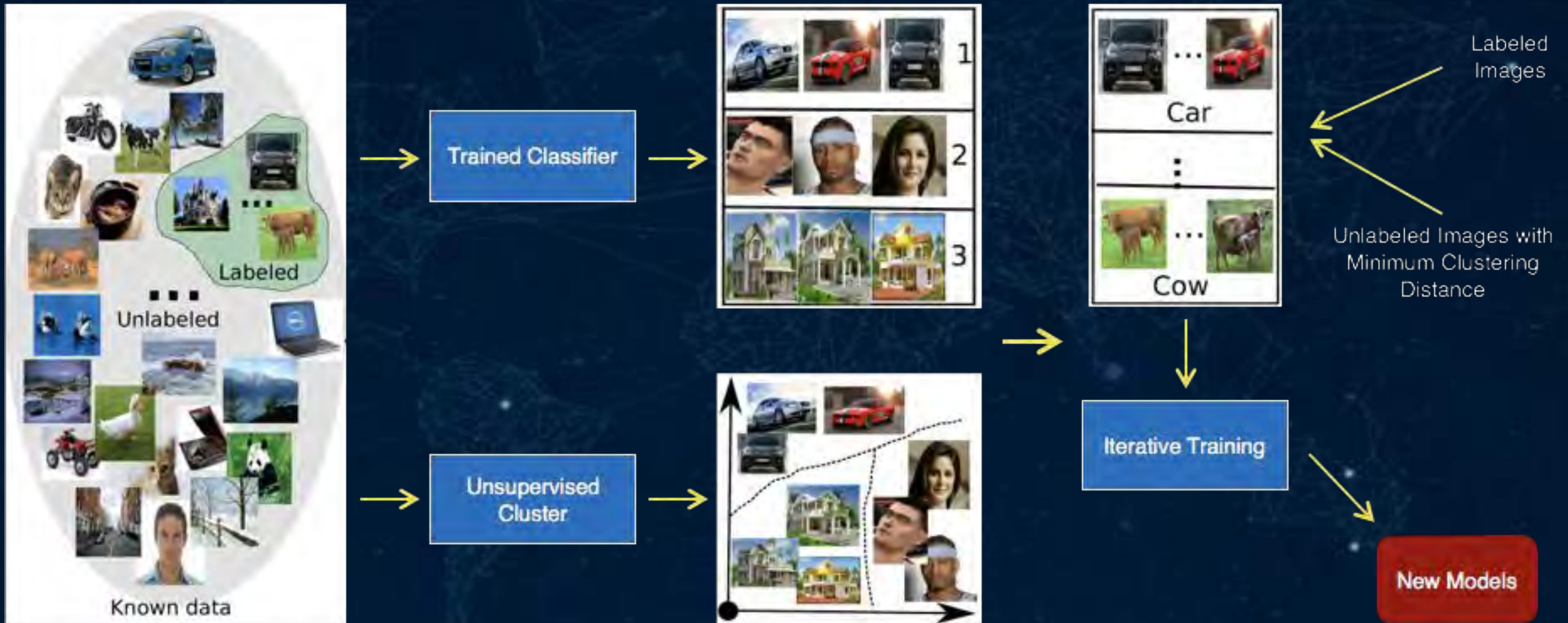


Independent Data Iterator

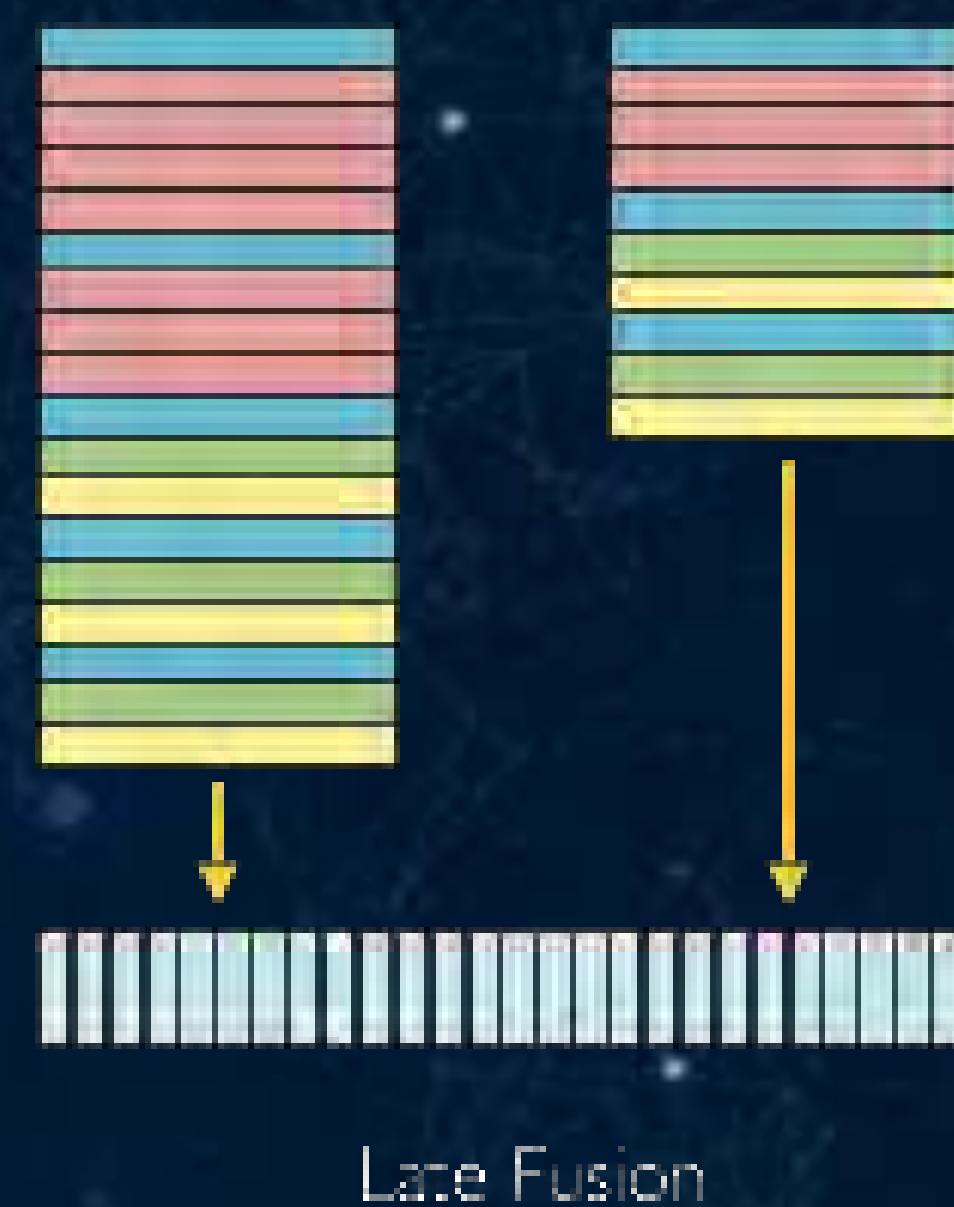
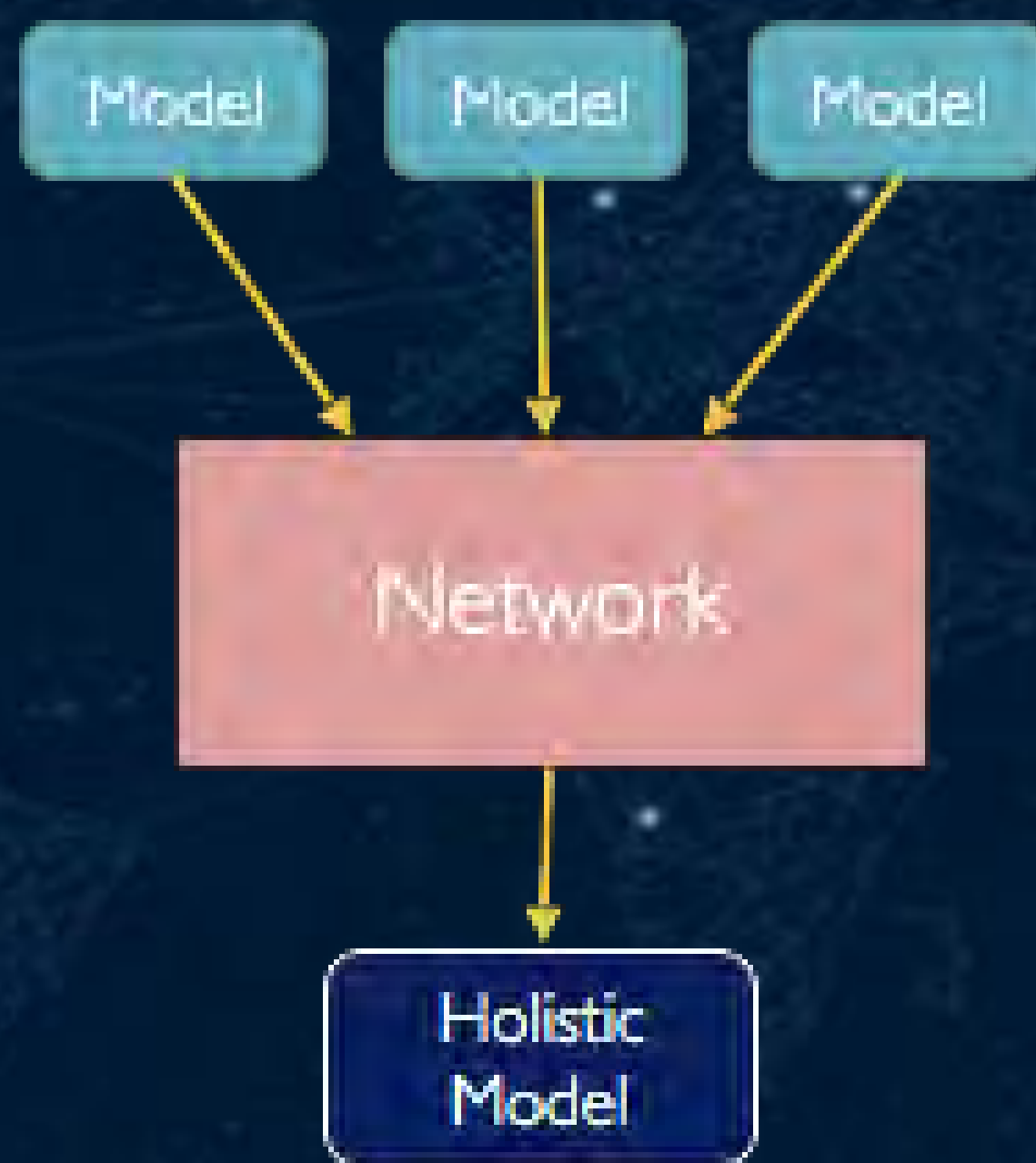
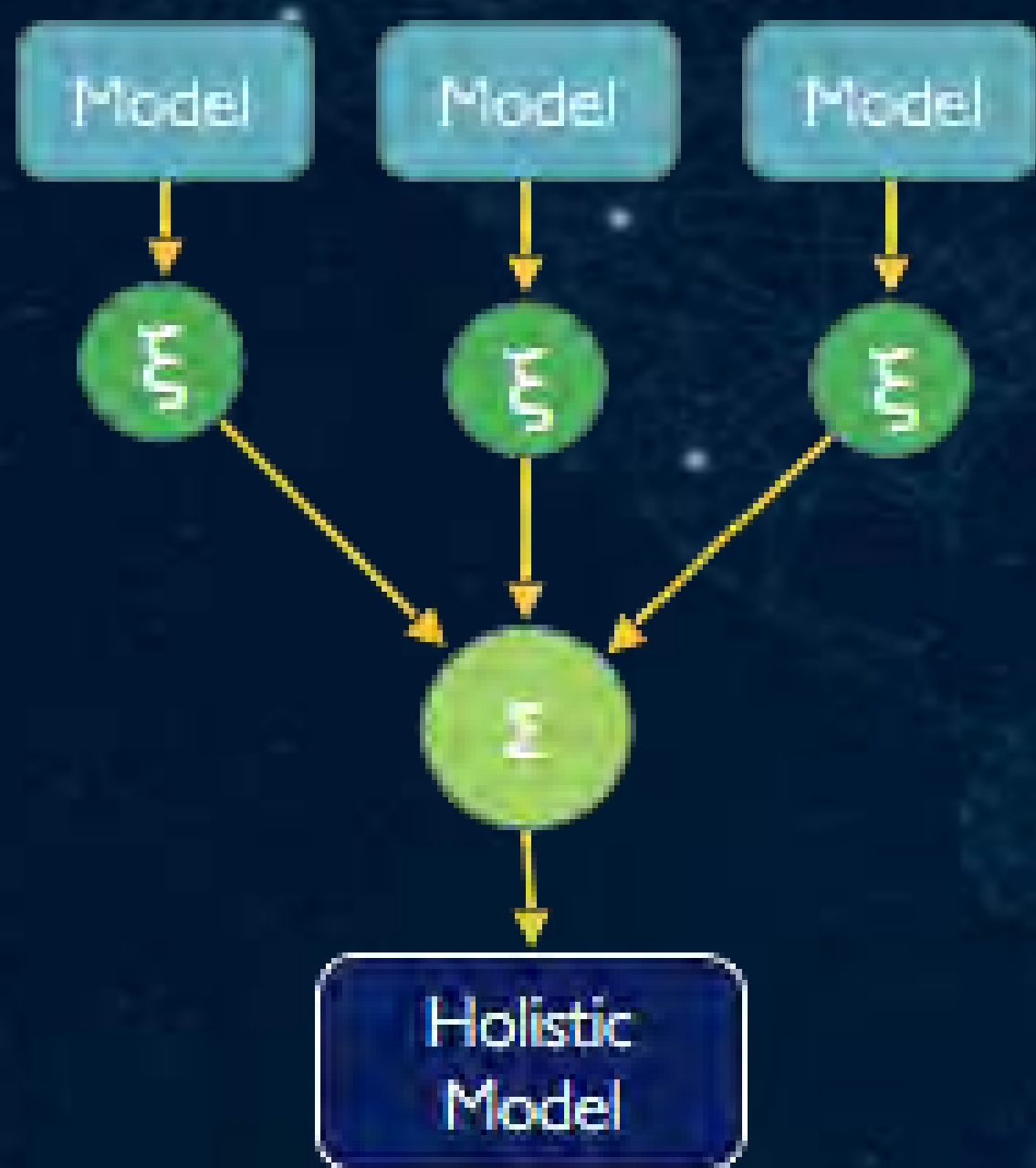


Semi-Supervised Labeling

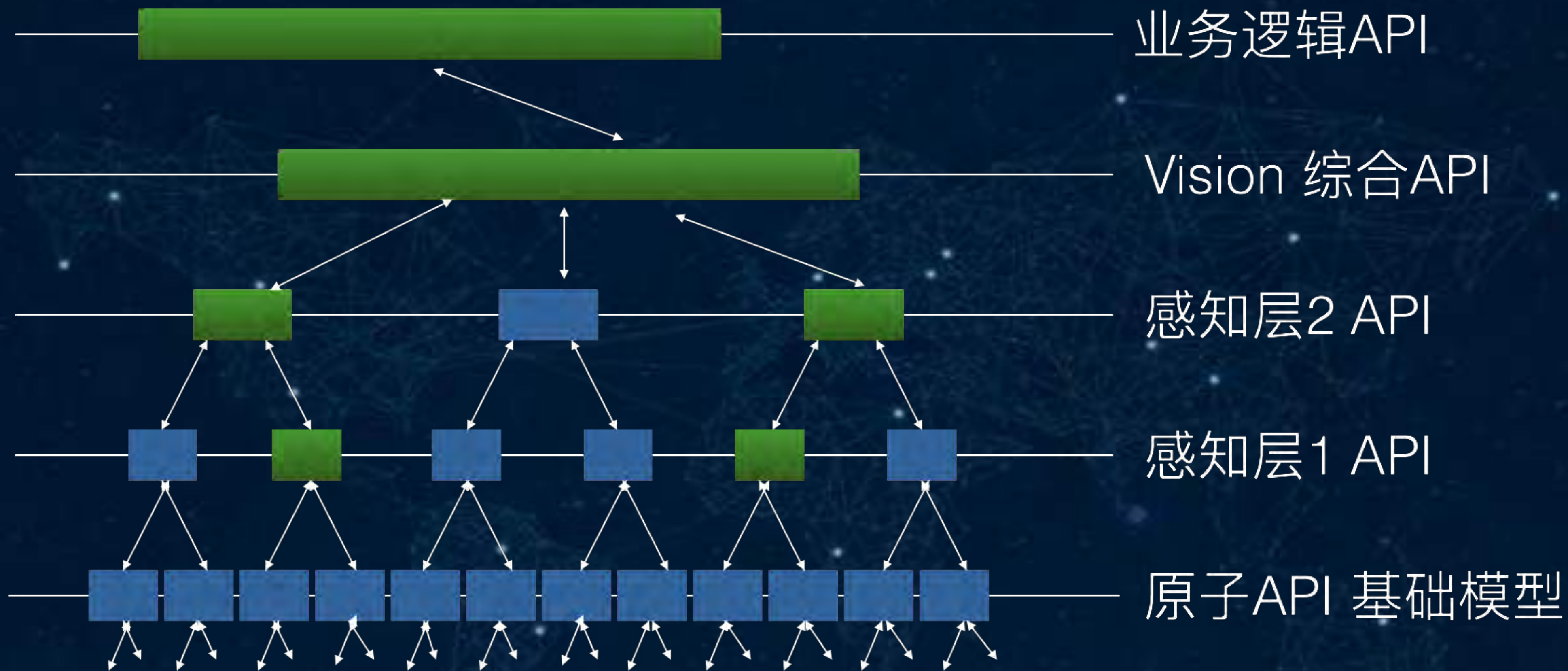
Iterative Training	Incremental Training	Semi-supervised Labeling	Model Comparison	Model Fusion
Data Flow		Graph Abstraction		
Data Clean	Data Augment	Caffe	MXNet	Tensorflow
Distributed System		Docker Orchestration		
Caching IO				
Storage	HDFS	Log Server	SQL	NoSQL



Model Fusion



Argus机器视觉系统



可自定义开发

Argus现有系统提供

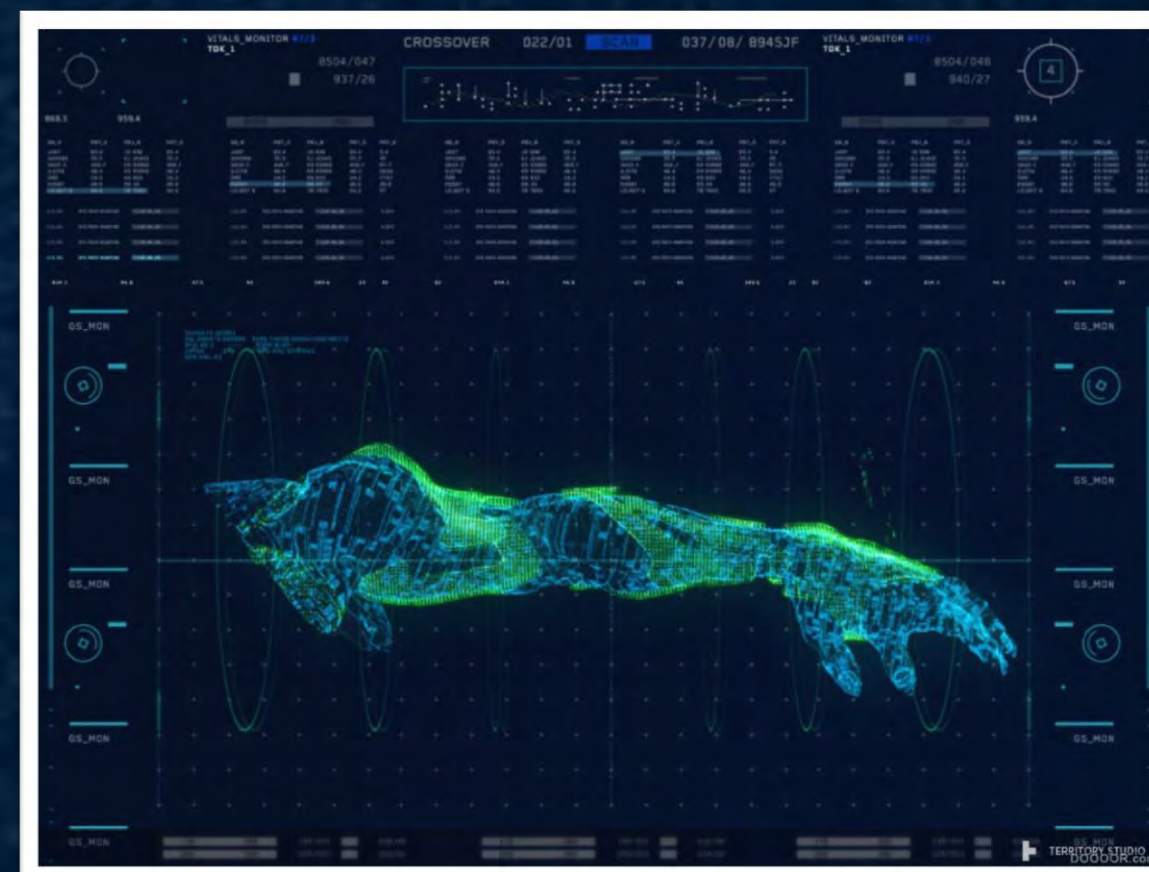


+



= ?

体感交互



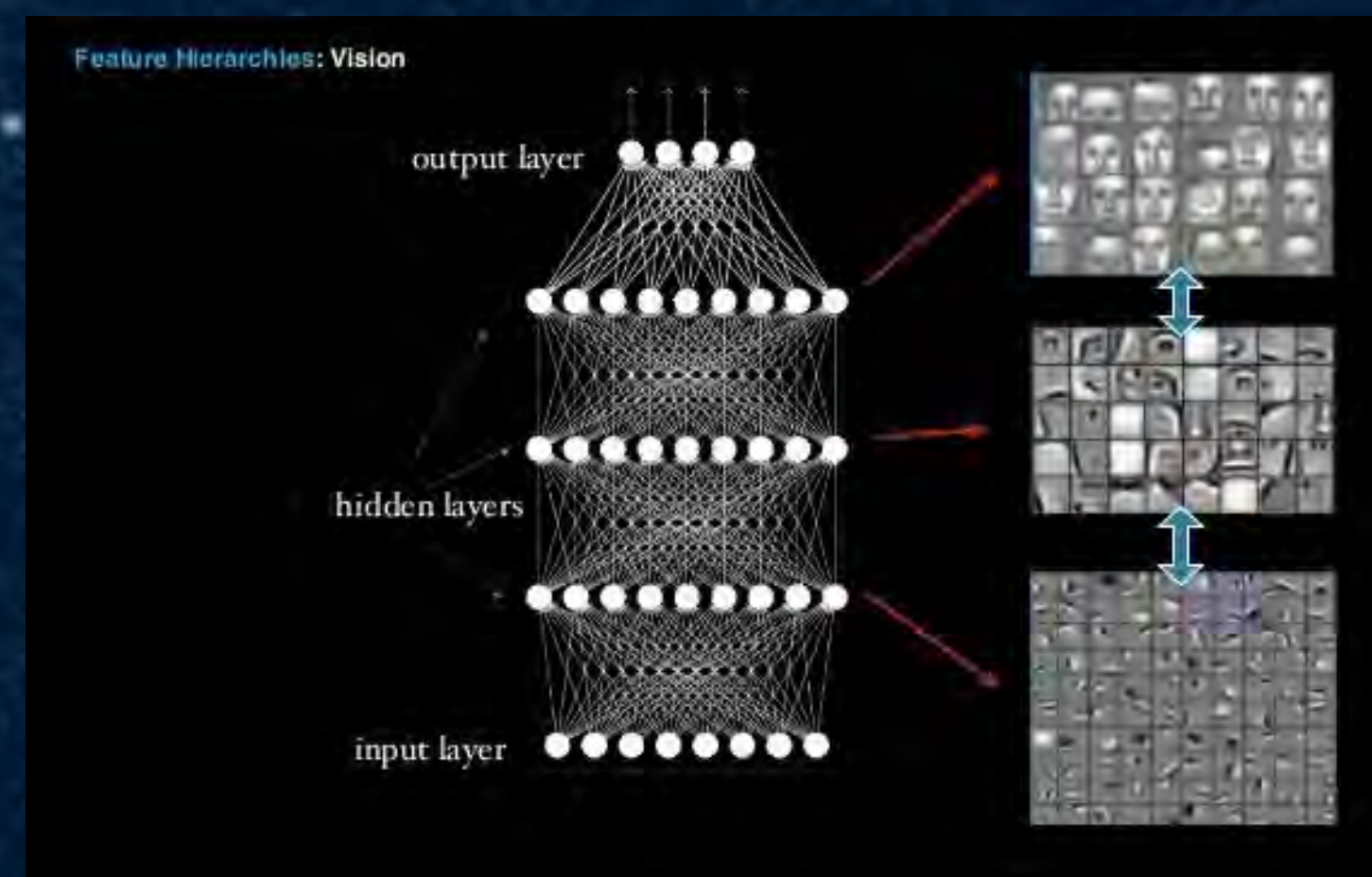
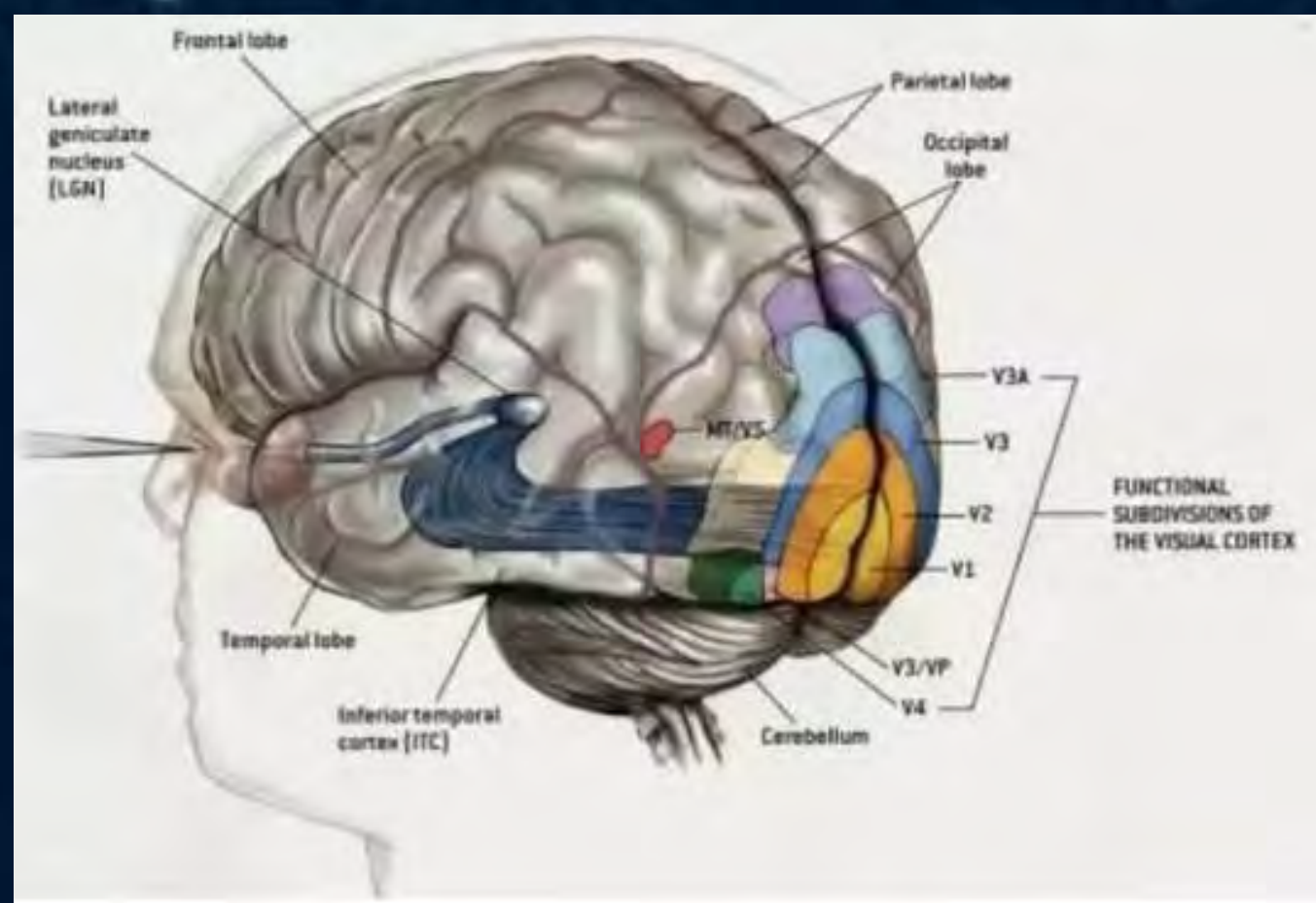
MR

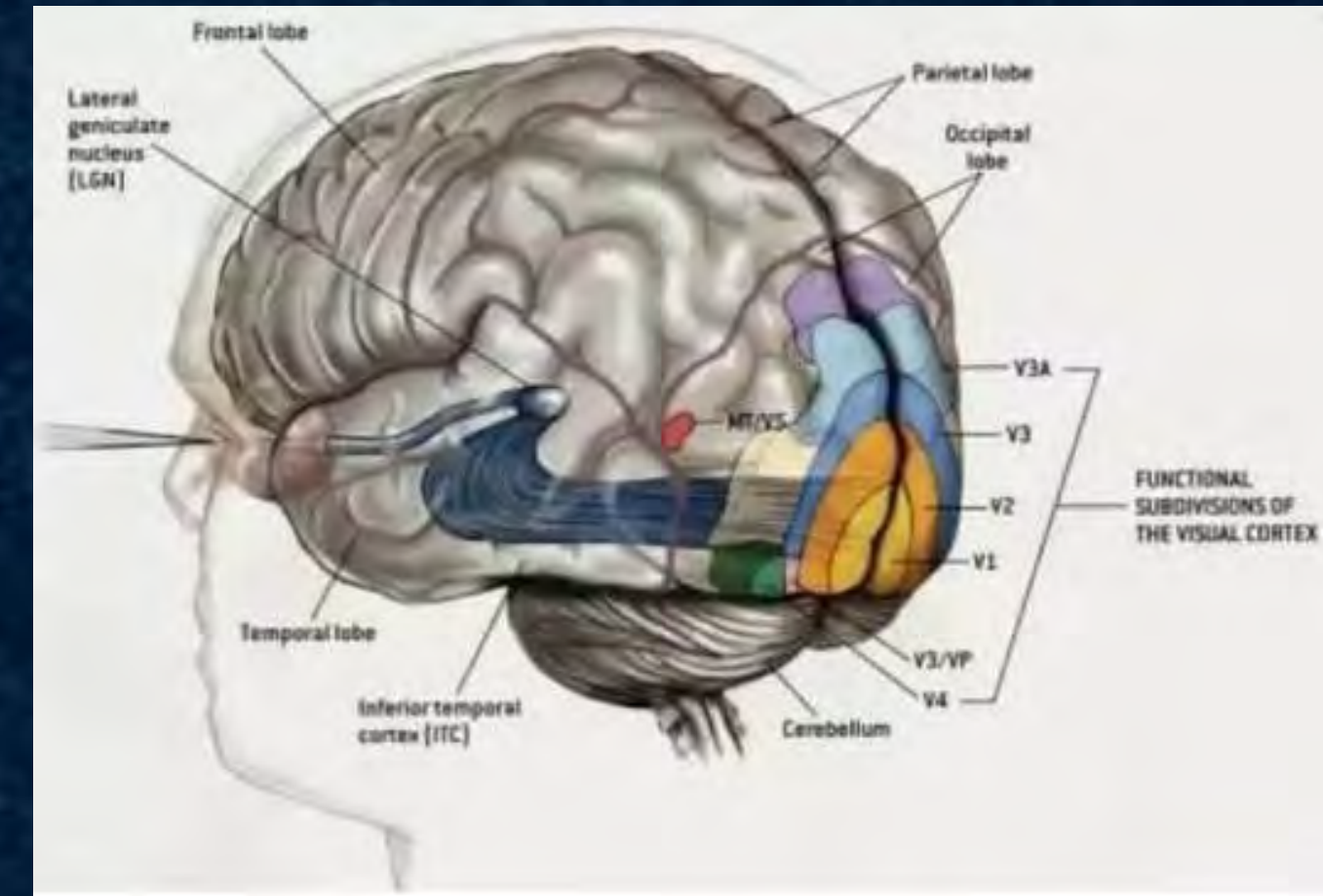
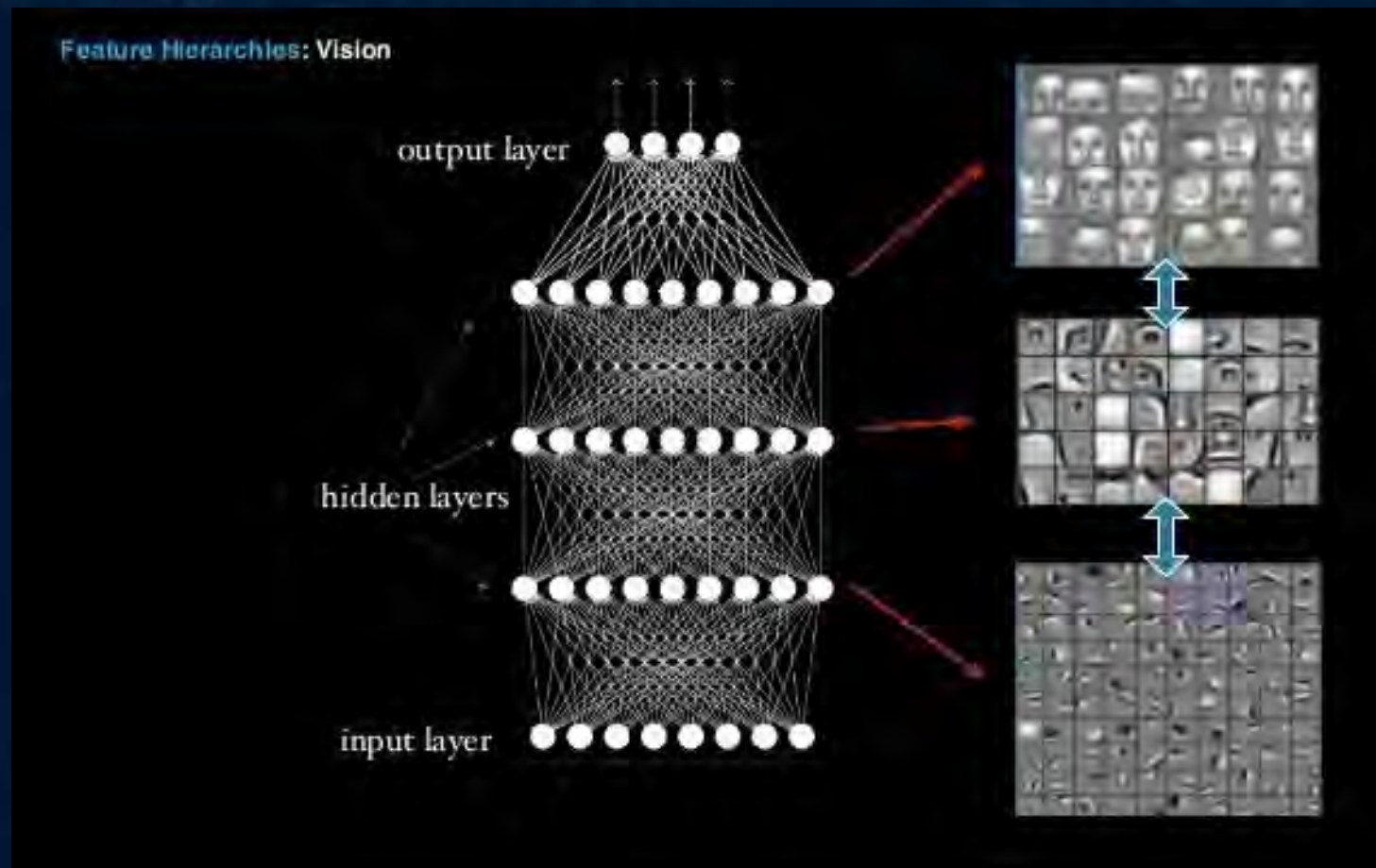


未来战争



人脑逆向工程







未来降临