



Peta Jalan **Ahli AI** 2022

Achmad Benny Mutiara

Dekan Fakultas Ilmu Komputer dan Teknologi Informasi, Universitas Gunadarma

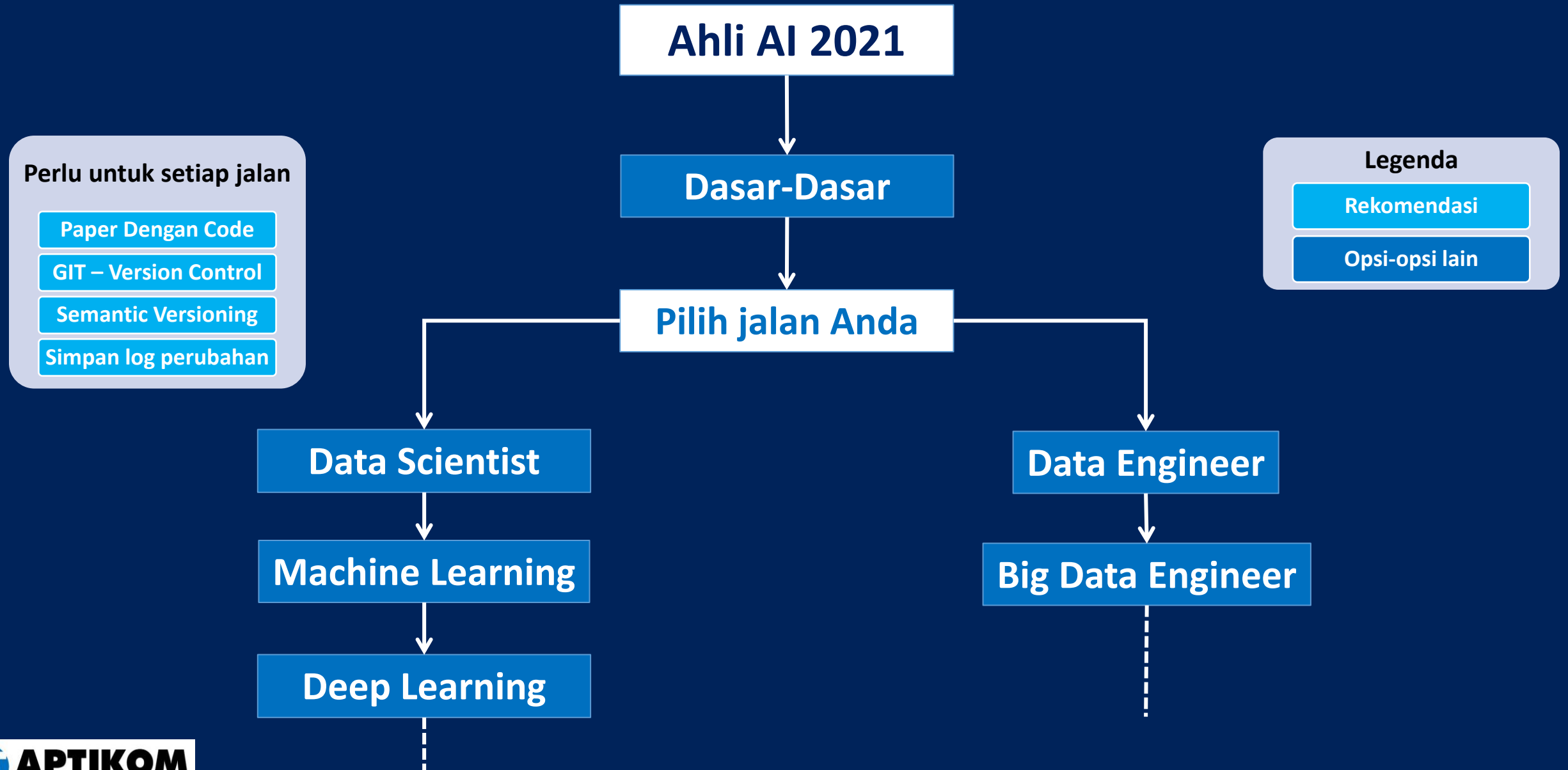
KETUM-APTIKOM

2023

Pengantar



Pengantar



Dasar-Dasar



Dasar-Dasar

Dasar-Dasar

Dasar

Dasar-Dasar Matriks & Aljabar Linier

Dasar-Dasar Basis Data

Tabular Data

Data Frames & Series

Extract, Transform, Load (ETL)

Reporting vs BI vs Analytics

Data Formats

Regular Expression (RegEx)

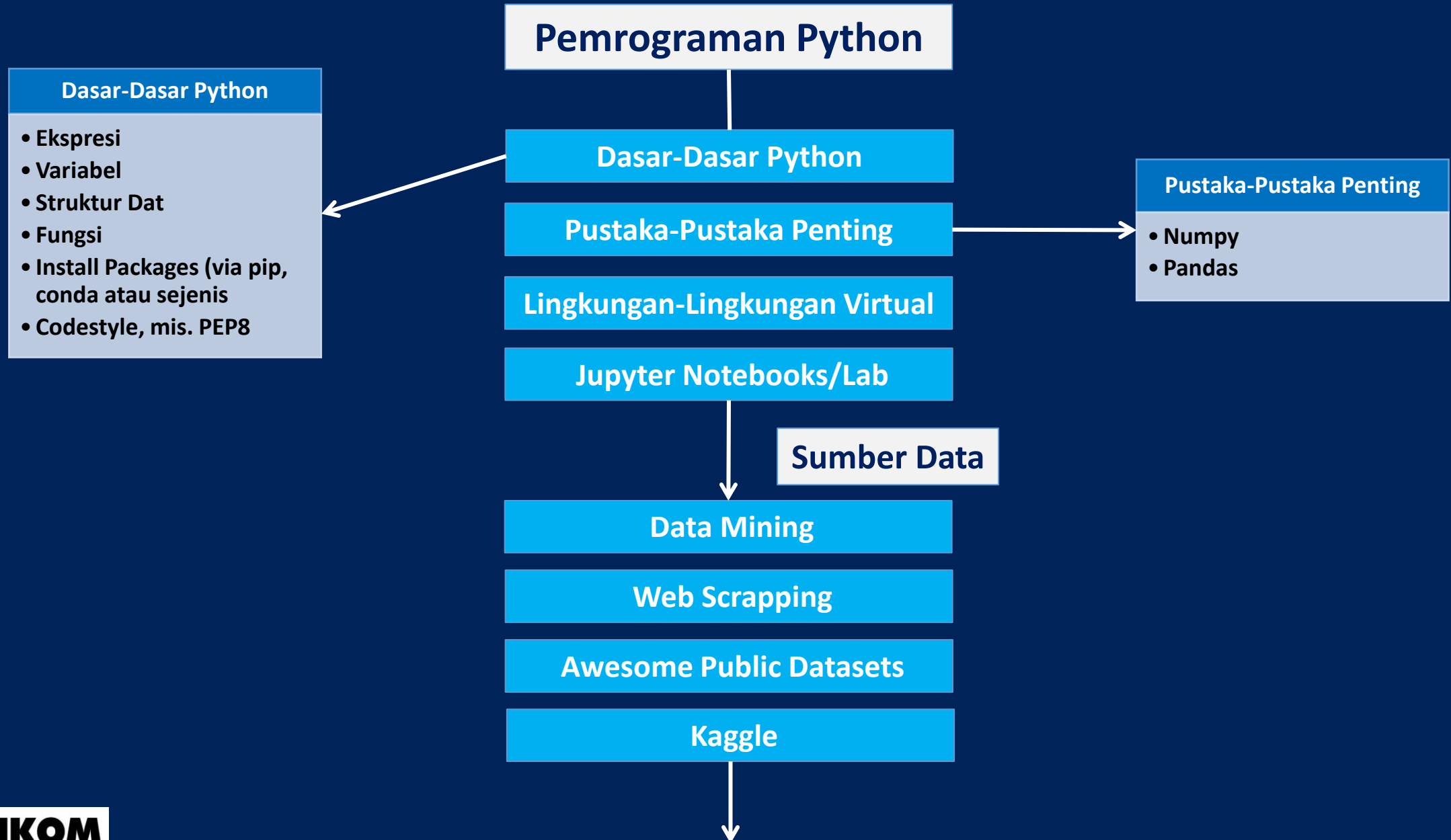
Dasar-Dasar Basis Data

- Basis Data Relasional vs Nir-Relasional
- SQL+Joins (Inner, Outer, Cross, Theta Join)
- NoSQL

Data Formats

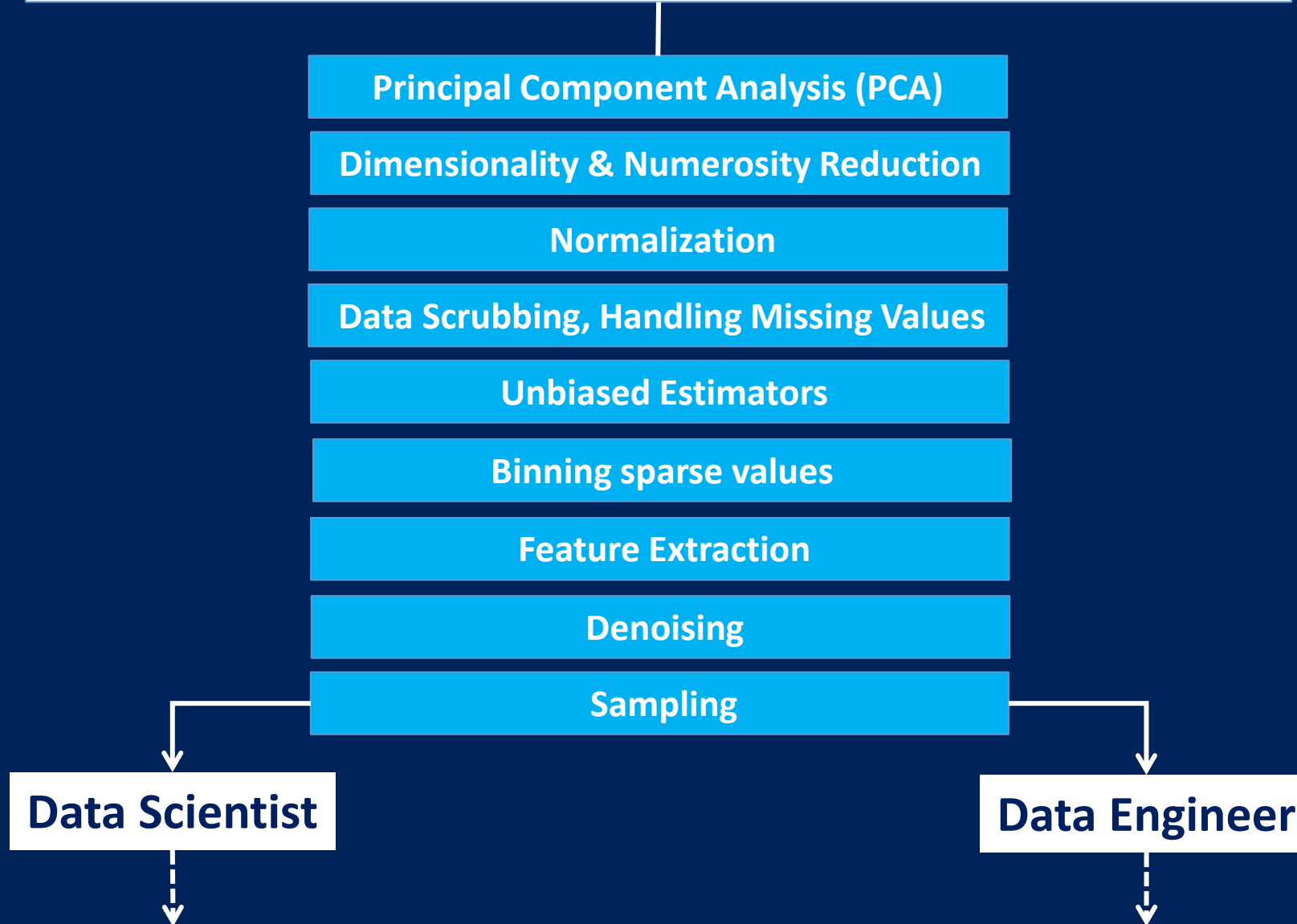
- JSON
- XML
- CSV

Dasar-Dasar



Dasar-Dasar

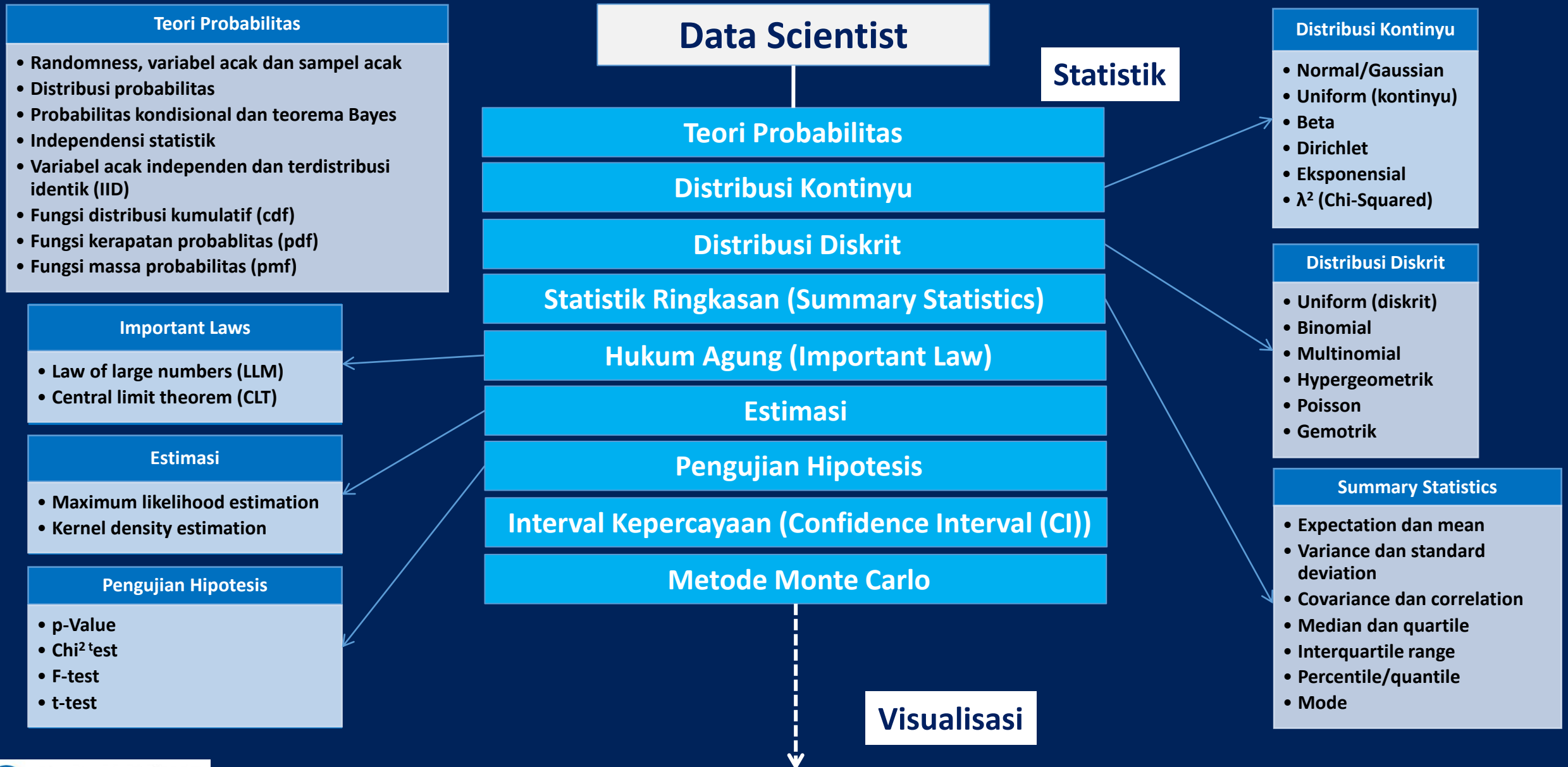
Exploratory Data Analysis/Data Munging /- Wrangling



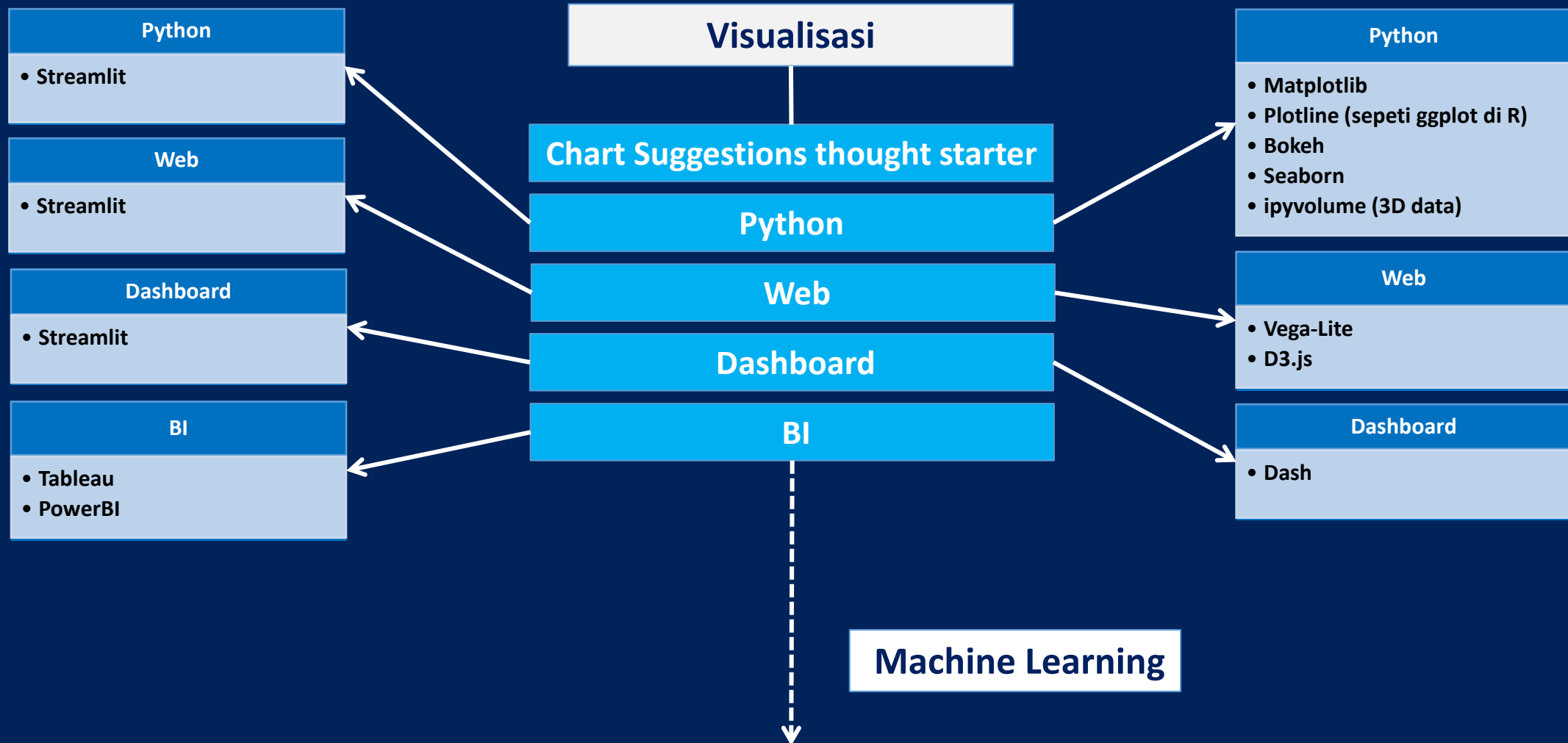
Peta Jalan **Sains Data**



Peta Jalan **Sains Data**



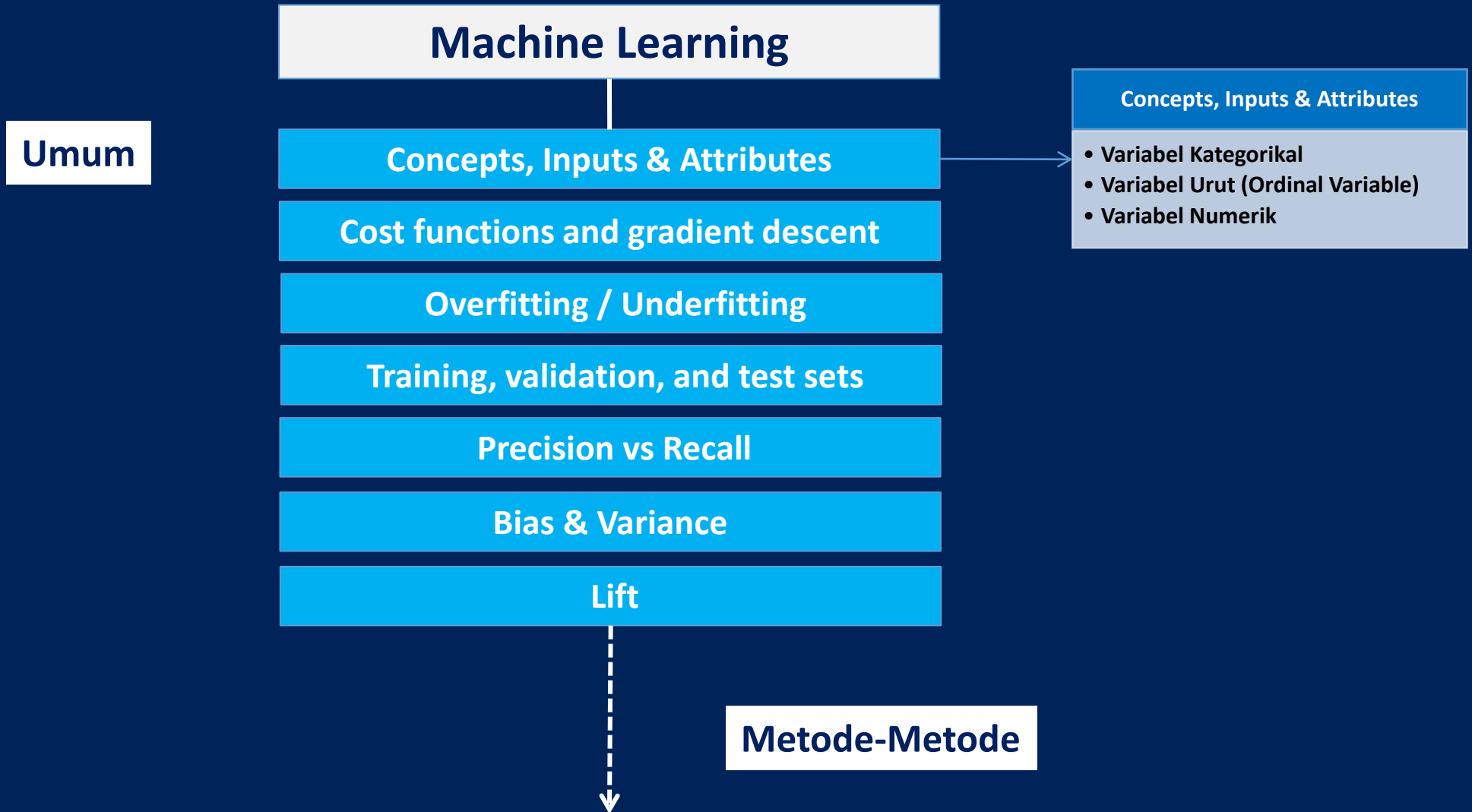
Peta Jalan **Sains Data**



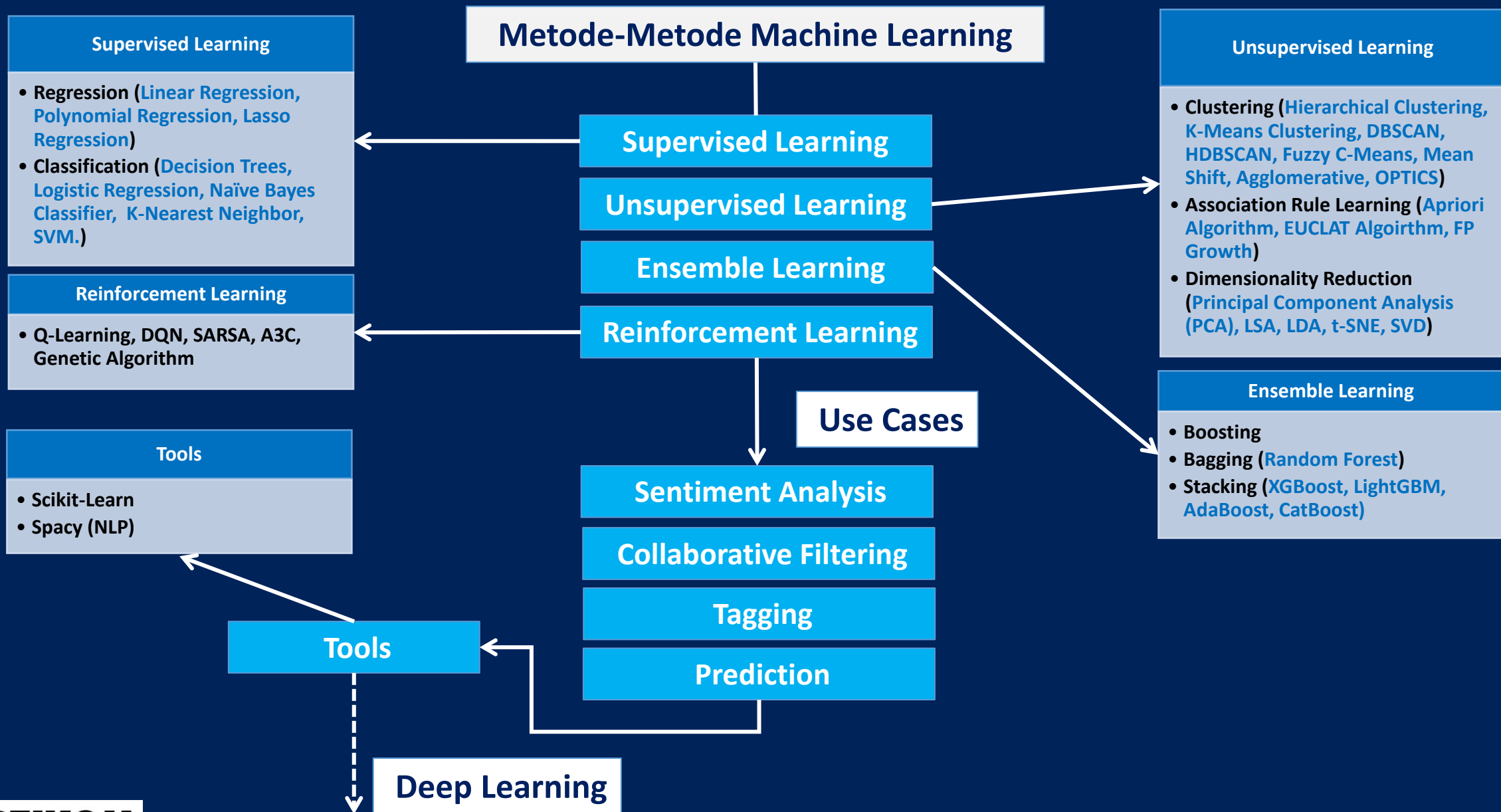
Peta Jalan **Machine Learning**



Peta Jalan **Machine Learning**



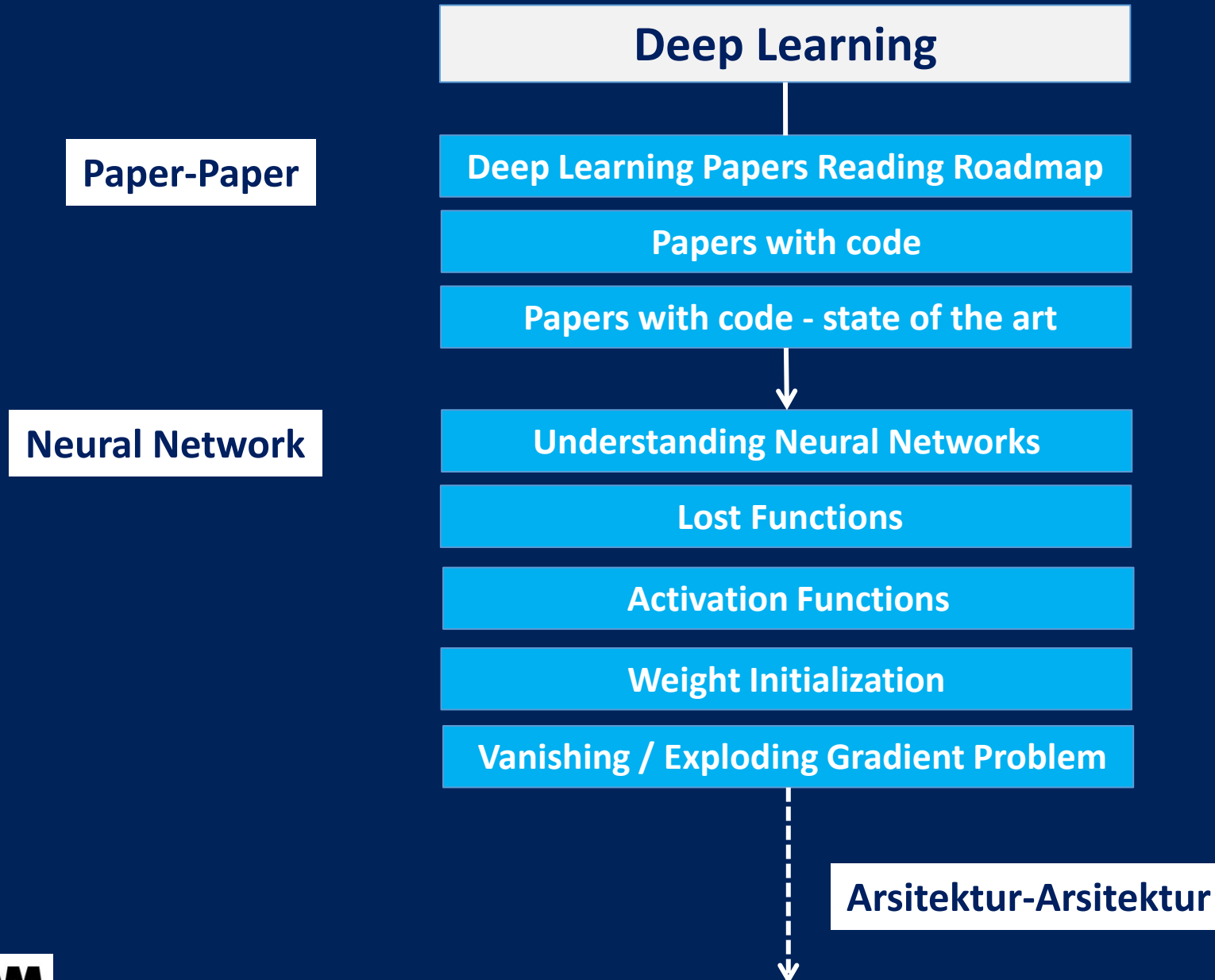
Peta Jalan Machine Learning



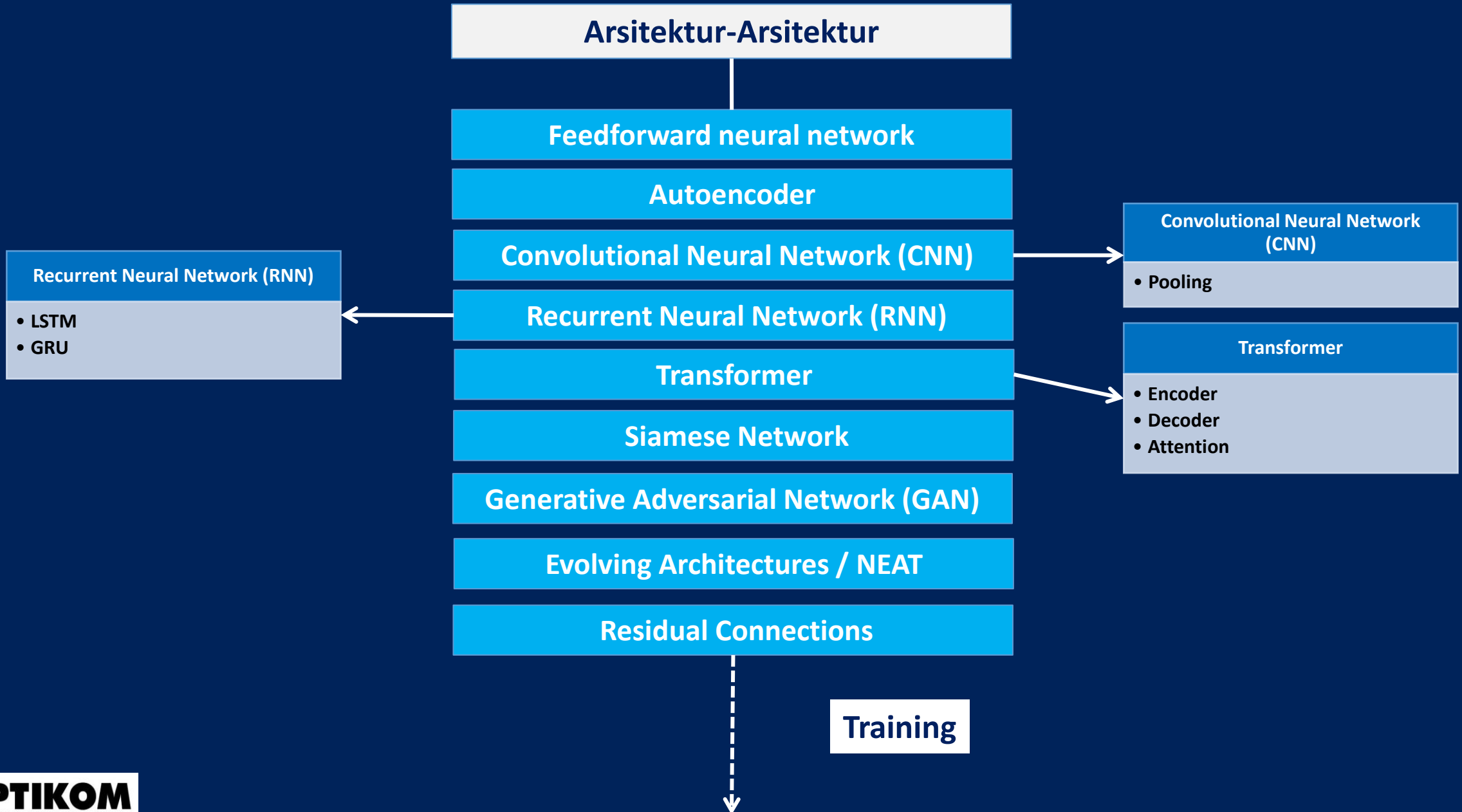
Peta Jalan **Deep Learning**



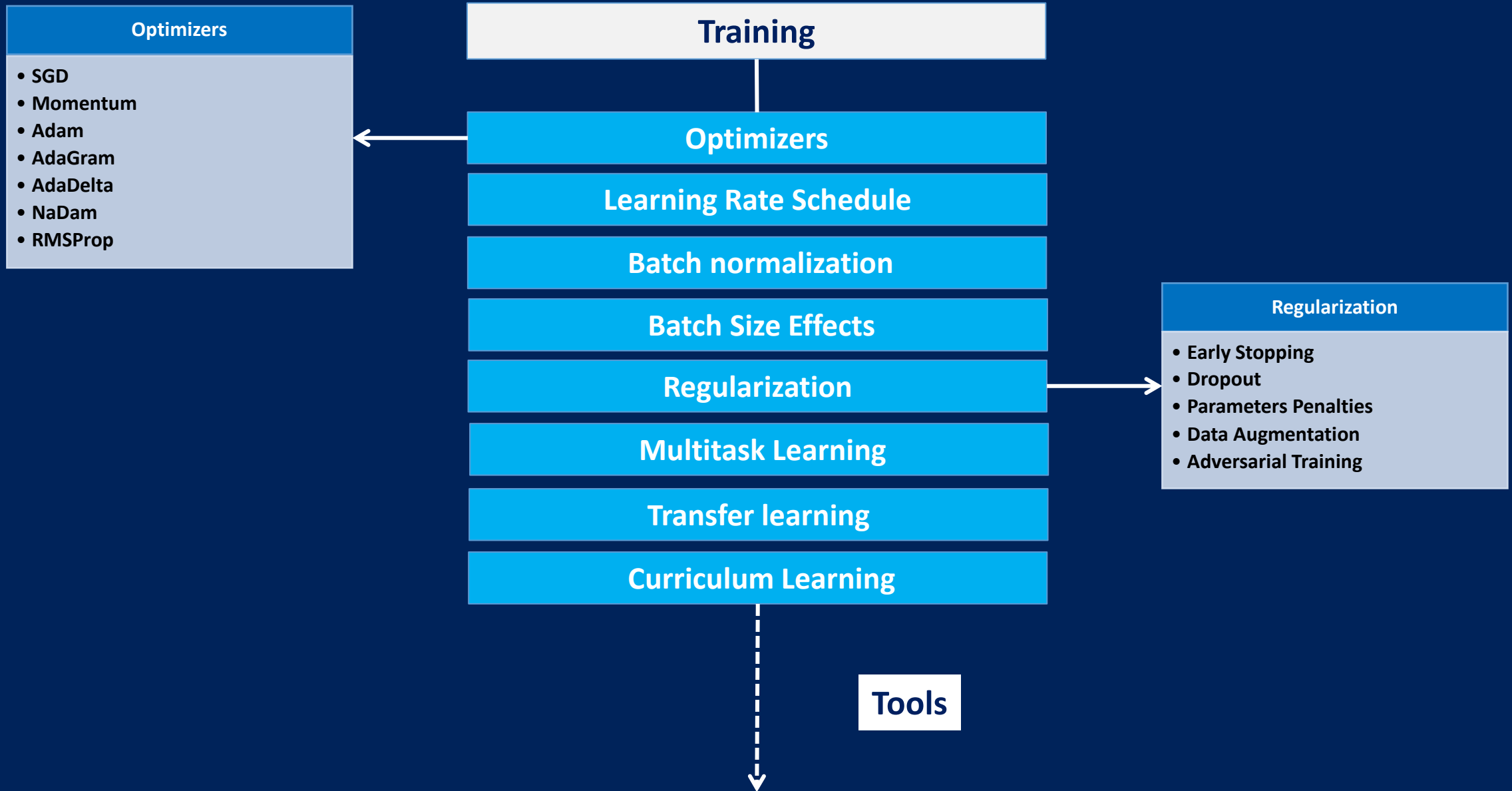
Peta Jalan **Deep Learning**



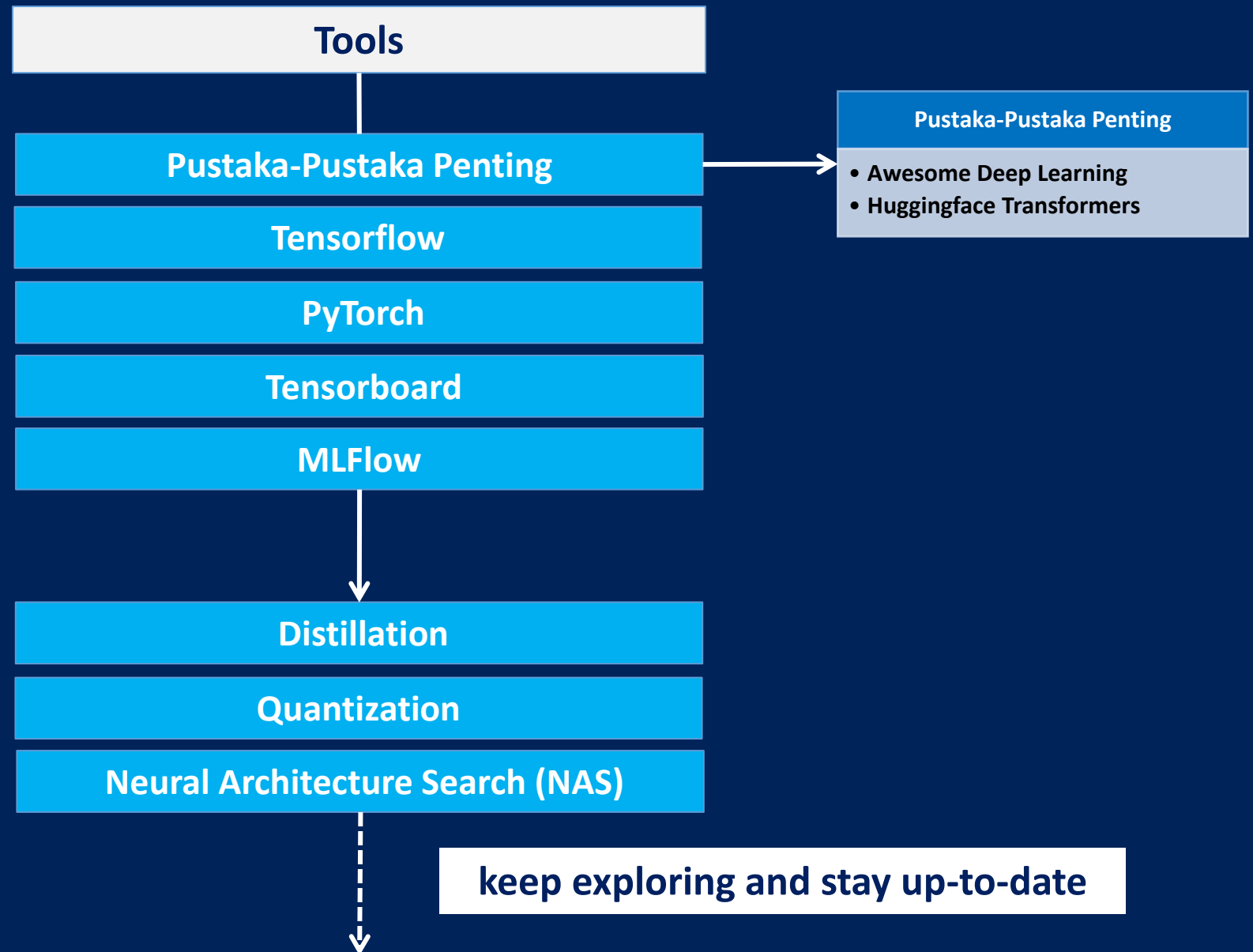
Peta Jalan Deep Learning



Peta Jalan Deep Learning



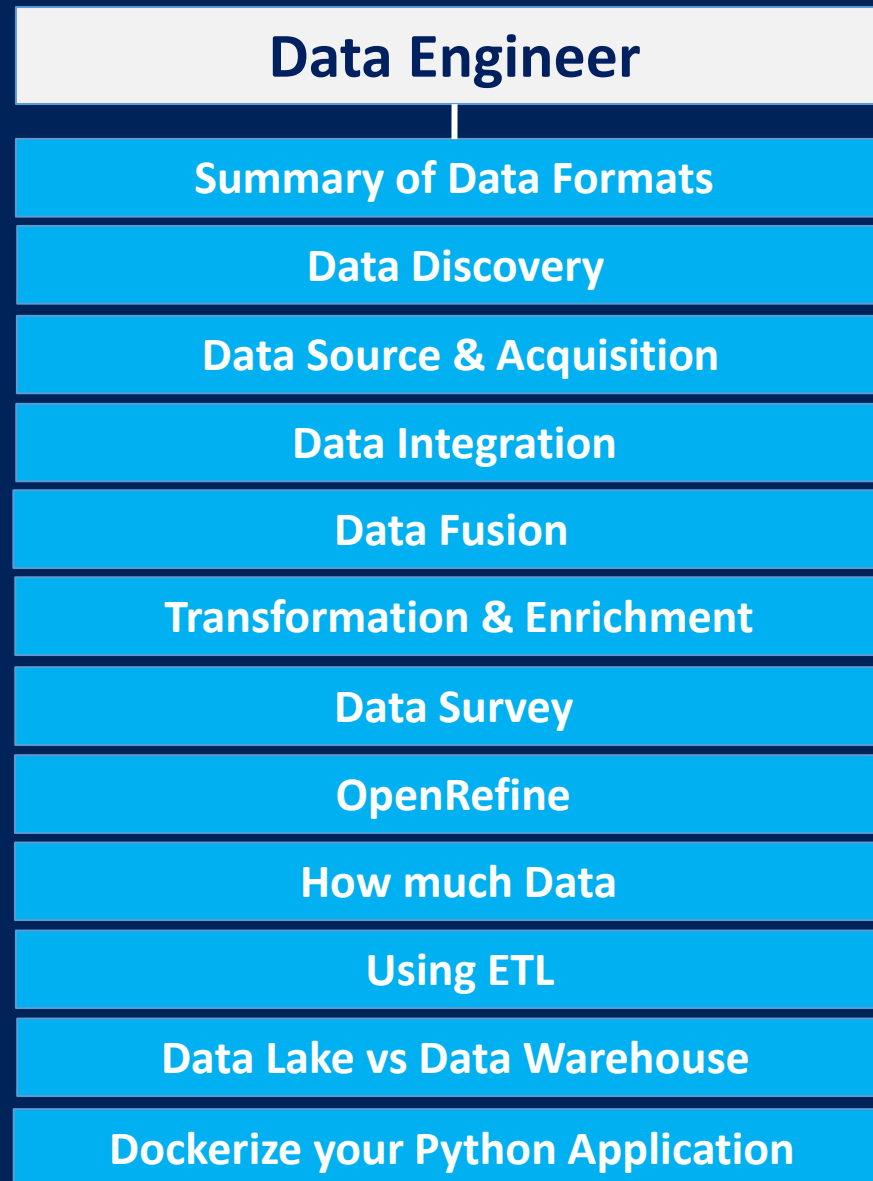
Peta Jalan Deep Learning



Peta Jalan **Data** **Engineer**



Peta Jalan **Data Engineer**

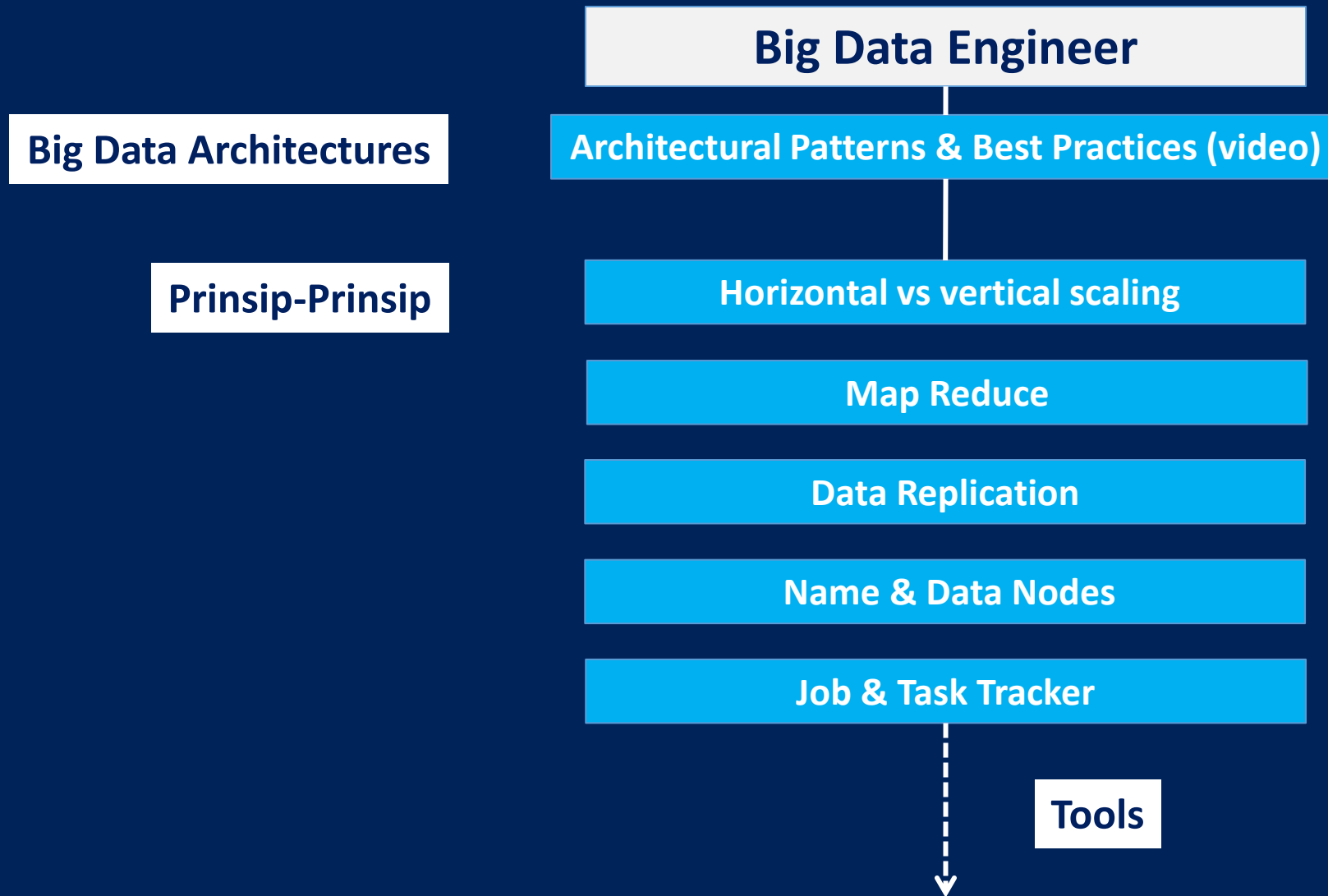


keep exploring and stay up-to-date

Peta Jalan **Big Data** **Engineer**



Peta Jalan **Big Data Engineer**



Peta Jalan **Big Data Engineer**

Tools

Numba

Onnx

OpenVINO

MLFlow

Kafka & KSQL

Databases

Scalability

Cloud Services

Awesome Production ML

Check the Awesome Big Data List

Hadoop (large data)

Spark (in memory)

RAPIDS (on GPU)

Flume, Scribe: For Unstruct Data

Data Warehouse with Hive

Elastic (EKL) Stack

Avro

Flink

Dask

Hadoop (large data)

- HDFS
- Loading data with Sqoop and Pig
- Storm: Hadoop Realtime

Databases

- Cassandra
- MongoDB, Neo4j

Cloud Services

- AWS SageMaker
- Google ML Engine
- Microsoft Azure Machine Learning Studio

keep exploring and stay up-to-date