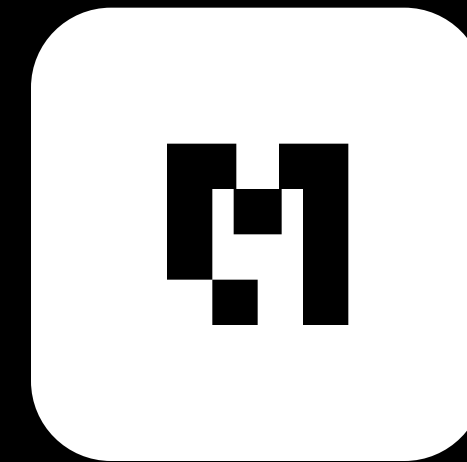# Moose JS PY
Clickhouse Demo

I'M GEORGE

A full stack developer at 514, the startup behind Moose

THIS IS MOOSE

An open source developer framework for your data & analytics stack

More and more companies want to build analytics-oriented user experiences...

Eg: real-time, interactive visualization or exploration of user data

"The bottleneck isn't the UI, it's the specialized data backend we have to build and manage."

"The data stack isn't technically difficult, but it's operationally a pain. Lots of human error. Changes upstream break everything downstream."

"These cool analytics features are important for our users and the business, but we just don't have the bandwidth to deliver"

Creating the backend is almost always the bottleneck...

OPTION 1
QUICK AND DIRTY ARCHITECTURE

Build on what you know, even if it's not perfect

Great for getting out the door asap, especially if scale and performance aren't really a concern

OPTION 2
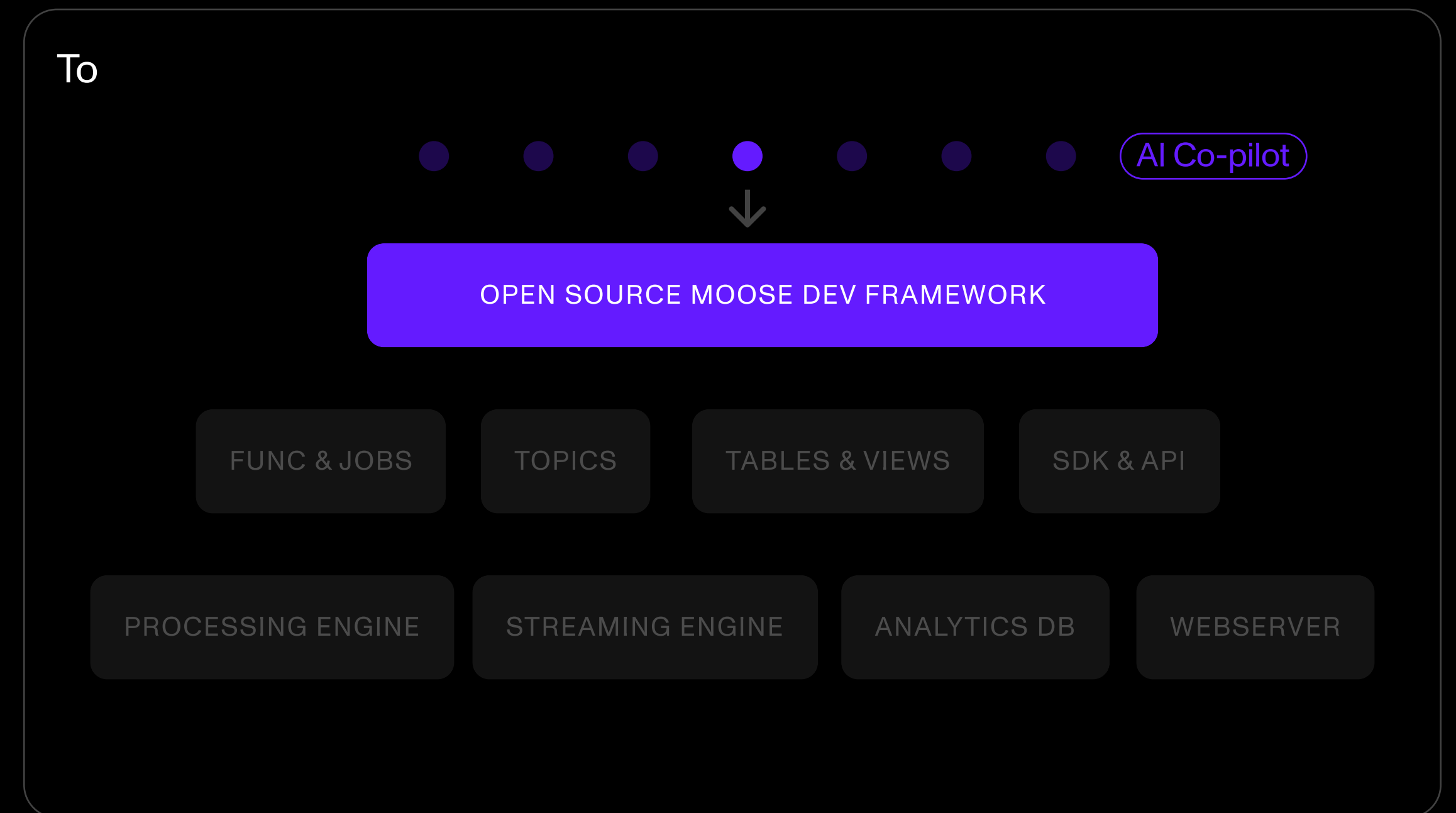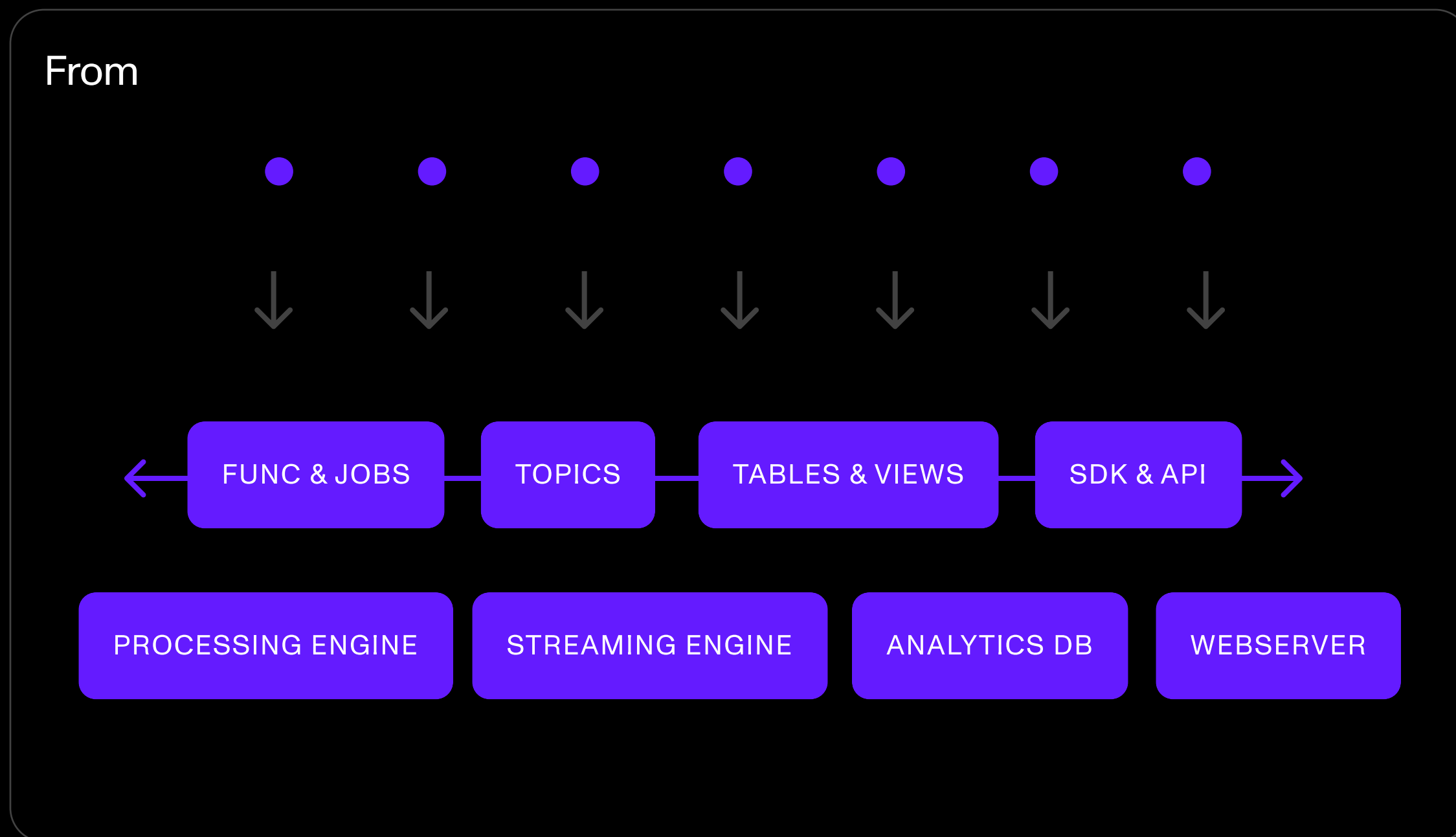### RE-ARCHITECTURE FOR SCALE

Build a proper, scalable, modern, best practices data stack

Sets the proper foundation to scale in the long run, BUT... usually takes a bunch of time and resources to build and manage
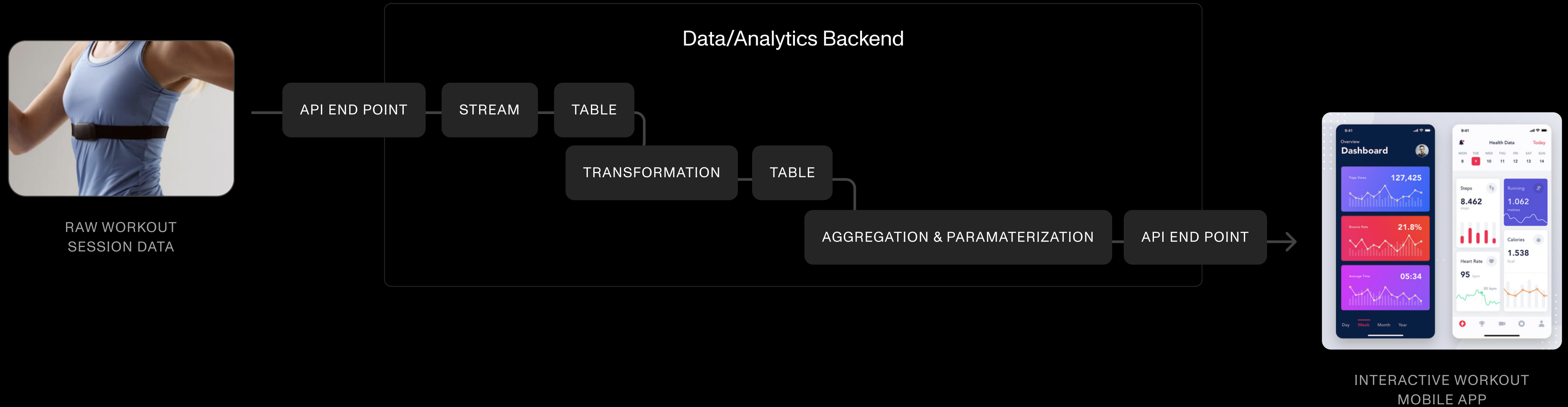
WITH MOOSE, WE WANT TO GIVE YOU THE BEST OF BOTH WORLDS
Build a best in class data/analytics backend with the speed and agility of "quick and dirty"

Moose abstracts away the architectural and operational complexity of specialized data stacks

From

FUNC & JOBS — TOPICS — TABLES & VIEWS — SDK & API

PROCESSING ENGINE · STREAMING ENGINE · ANALYTICS DB · WEBSERVER

To

AI Co-pilot

OPEN SOURCE MOOSE DEV FRAMEWORK

FUNC & JOBS · TOPICS · TABLES & VIEWS · SDK & API

PROCESSING ENGINE · STREAMING ENGINE · ANALYTICS DB · WEBSERVER

Demo IOT Heart Rate Data & Analytics

Data/Analytics Backend

RAW WORKOUT SESSION DATA

API END POINT → STREAM → TABLE

TRANSFORMATION → TABLE

AGGREGATION & PARAMATERIZATION → API END POINT

INTERACTIVE WORKOUT MOBILE APP

Moose Primitives (Typescript/Python)

Data Models

DEFINE THE STRUCTURE OF YOUR DATA

Functions

PROCESS STREAMING DATA ROW BY ROW

APIs

AGGREGATE FOR CONSUMPTION VIA PARAMETERIZED API

Thank you