

ODA Data Notebook on the ODA Framework

Integrated Development Environment

ODA Data Notebook is a direct way to access the integrated data on the ODA Framework for developing data science, analytics, and machine learning algorithms and running analyses at scale on the computational platform of choice.

ODA's distributed computing platform delivers the power to compute and analyze your data at scale using a multi-modal data representation. The Data Notebook makes it easy to develop applications in Python, R, and Scala, among other options. Develop your approach and run your jobs without worrying about compute deployment.

ODA Platform Benefits

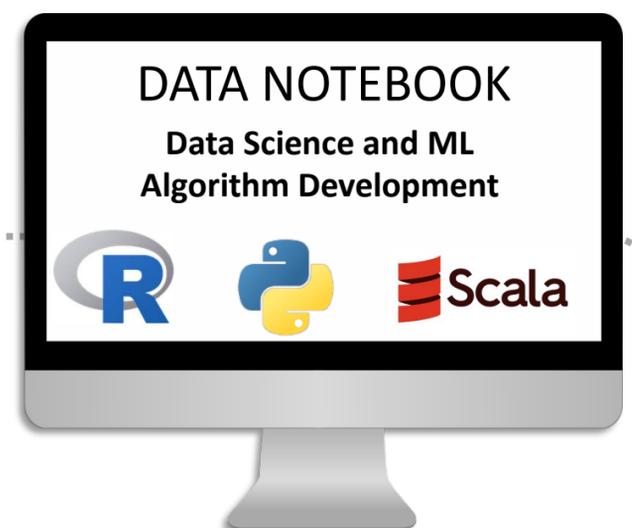
- Save valuable time and gain accuracy in aggregation of all relevant data
- Effectively integrate, analyze and visualize multiple data modalities
- Select and analyze cohorts via multi-modal metrics
- Optimize machine learning and statistical inference strategies fusing all aspects of your dataset

Causal AI

- Perform distributed causal inference at scale
- Identify causal relationships rather than correlations
- Benefit from interpretable causal models that suggest interventions
- Ask and strategize with counterfactual what-if queries
- Build interpretable machine learning models
- Visualize causal interactions



**NOVEL INSIGHTS
BETTER OUTCOMES**



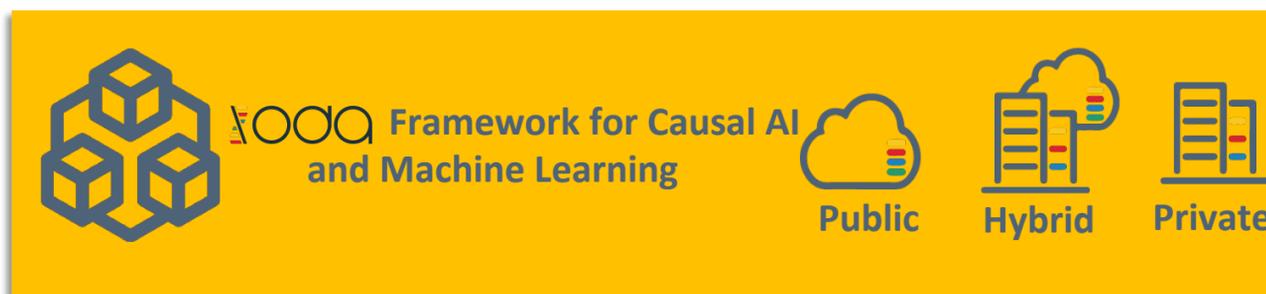
DOMAIN INTERFACES

Scalable Interface



ODA Framework

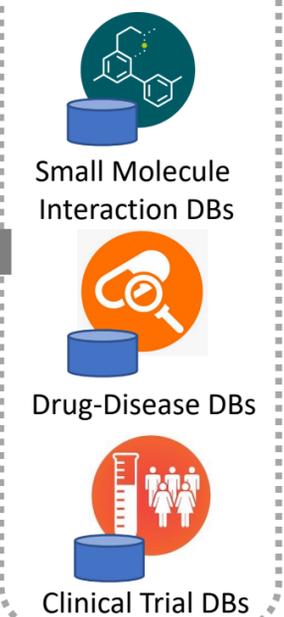
Scalable Compute



Scalable Store



EXTERNAL KNOWLEDGEBASES



Your Data on the ODA Platform

- Connect your data sources to the ODA Platform in your secure cloud or on-premise installation
- Manage genomics, imaging and EHR data on specialized data stores
- Leverage automated data ingestion
- Visualize relationships in your data using 2D, 3D and VR

Security and Compliance

- Securely store and manage your genomics data efficiently in Omics Data Store on the ODA Platform
- Securely store and manage your slide images in Image Data Store on the ODA Platform or connect to your image server
- Support compliance with end to end audit logging

Federated Learning

- Leverage joint analysis over disparate datasets without sharing sensitive information
- Increase N for greater precision
- Model rare phenomena
- Send Compute to Data
- Only model statistics and updates are shared; individual patient data are not