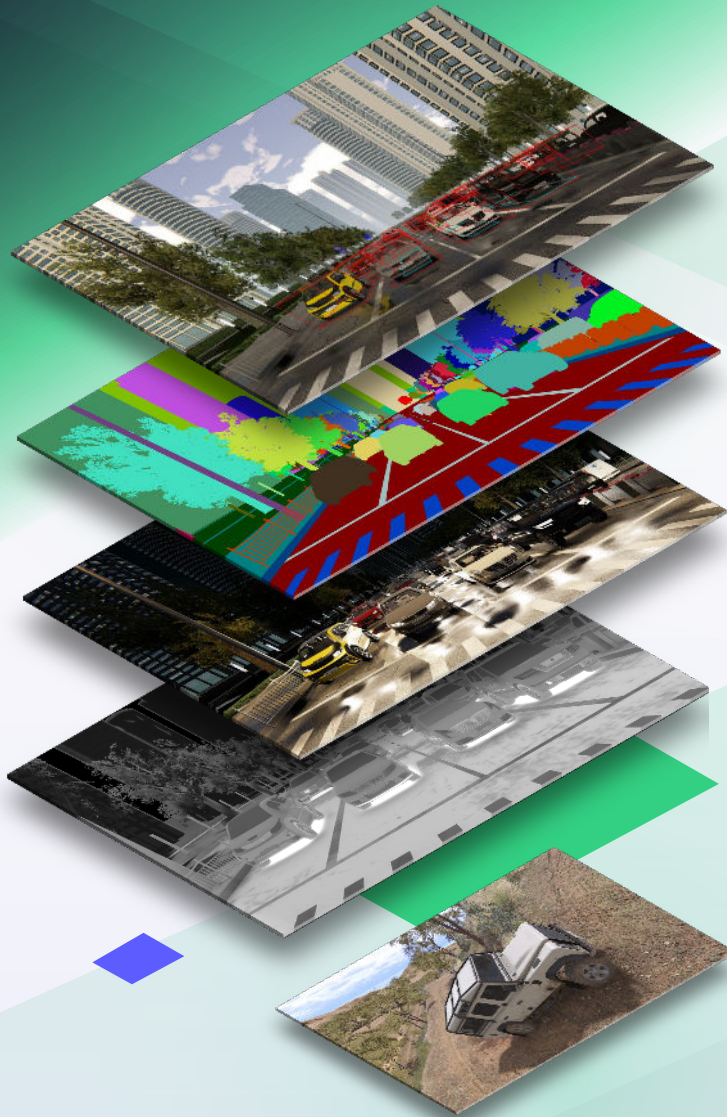![cognata — Simulating Autonomy]

Autonomous Robotics Simulation Platform

Simulating Autonomy

Cognata provides a photorealistic automotive simulation platform where virtual cars travel virtual roads, from cities to unmarked terrain, all remarkably true to real-world conditions. Cognata's platform is more than a software - we provide the know how on how to best utilize synthetic data through all development stages – Training, testing and validation fitted to different verticals and scenarios.

Photorealism

Cognata provides a photorealistic automotive simulation platform with advanced digital twins advanced modeling, which is used to train AI-based engines - perfect ground truth with just one click of a button.
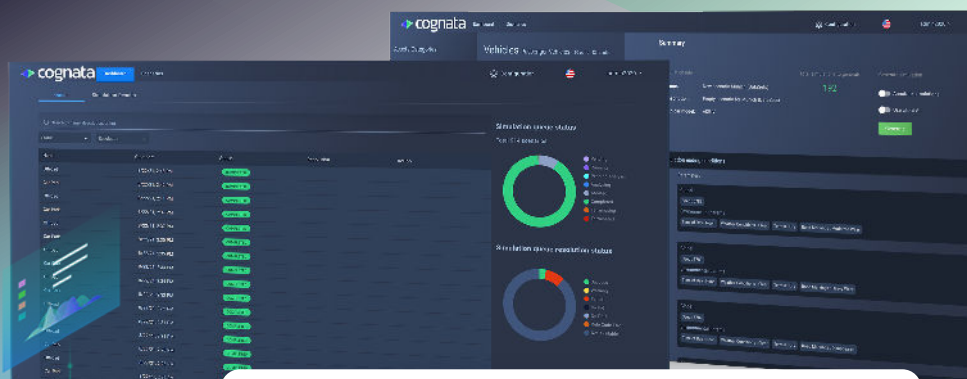
Scale

Cognata's technology uses cloud architecture to support large-scale simulation, which allows for creating multiple synthetic environment use-cases scenarios rapidly and with automatic variations.

Quality

Cognata's simulation platform is able to create different safety-critical scenarios, with pixel-perfect, accurate, and consistent annotation in every frame by automatic labeling – including different segmentation types.

Digital Twin Based Technology

Cognata's simulation platform is multi-layered and meant to incorporate all factors into its simulation engine, and creates a procedurally-built 3D environment of a digital twin that includes intelligent traffic agents that accurately replicate geo-specific behaviour.

Comprehensive Platform

Training: Automotive grade photorealistic synthetic data that can be used to train Deep Neural Networks (DNN)

Testing: Pixel-perfect, complete ground truth semantic segmentation and automatic labeling for algorithm testing

Validating: Complete AV virtual certification for regulatory requirements

Extracting Insights

Customized Scenario Library with more than 1,000 unique parameters adjusting to the specific vehicle models and dynamics

Automatic Testing Rules: measured progress toward road readiness according to specific use-cases

Self-Service tools: Customized 3D asset import as dynamic/moving objects or Ego cars

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