Validated Designs for Al Solution Brief

# Automate Machine Learning to Scale AI Success

Empower data scientists to focus on innovation.

The Dell Validated Design for AI — Automatic Machine Learning (AutoML) automates algorithm selection, feature generation, hyperparameter tuning, iterative modeling and model assessment, making it easier and faster for data scientists to train the best model.

The integrated solution includes H2O.ai Driverless AI to automate machine learning, NVIDIA AI Enterprise Suite<sup>™</sup> for cloud-native AI development and deployment, delivered on VMware vSphere<sup>®</sup> with Tanzu<sup>™</sup> deployed on an engineering-validated and optimized Dell infrastructure stack.

## Streamline and speed ML development

As artificial intelligence (AI) and ML are becoming more essential, the shortage of ML experts threatens to throttle innovation. Even for experienced data scientists, it can take a lot of time to train and tune AI models. Automatic machine learning makes it easier and faster for anyone to create and launch groundbreaking AI applications.

H2O.ai Driverless AI automates algorithm selection, feature generation, hyperparameter tuning, iterative modeling and model assessment. Automating these repetitive tasks makes it easier and faster to train and evaluate ML models and enables people to focus on the business problems they are trying to solve.

In addition, the H2O.ai AutoML interface is designed to have as few parameters as possible so that all the user needs to do is point to their data set, identify the response column and optionally specify a time constraint or limit on the number of total models trained.

Dell Validated Designs for AI simplify the deployment of AutoML in conjunction with MLOps by providing jointly developed and engineering-validated solutions that help teams deploy models at speed for faster AI insights that drive business results.

#### Key benefits

- Al simplified: Automatic machine learning makes it easier for everyone to train Al models.
- **Faster AI insights:** Machine learning operations (MLOps) streamlines AI intro production faster.
- Proven Al expertise: Confidently deploy an engineering-tested/validated AutoML solution backed by world-class services and support. Select ProSupport Plus for a single point of contact for software and hardware support.

## H2O.ai AutoML

H2O.ai AutoML or automatic machine learning is the process of automating algorithm selection, feature generation, hyperparameter tuning, iterative modeling, and model assessment.

AutoML makes it easy to train and evaluate machine learning models. Automating repetitive tasks allows people to focus on the data and the business problems they are trying to solve. Learn More

Al InfoHub Dell.com/Al

#### **Technical specifications**

Dell VxRail hyperconverged infrastructure and PowerScale storage with PowerSwitch networking provide the solution's hardware foundation. An NVIDIA-Certified system, VxRail is accelerated with NVIDIA GPUs. VMware vSphere virtualization with VMware Tanzu deliver the predictability and security of containers. NVIDIA AI Enterprise Suite provides a cloud-native suite of data science tools and frameworks. Intel's cnvrg.io software streamlines MLOps. H2O.ai AutoML automates algorithm selection, feature generation, hyperparameter tuning, iterative modeling and model assessment. All engineering-validated, tested and tuned to work together, this Validated Design for AI simplifies AI, providing faster time to insights delivered with proven AI expertise.

Compute	Accelerators	Networking	Software	Storage
4x VxRail HCI V670 or Dell PowerEdge R750xa	NVIDIA A100 or A30 GPUs (optional)	PowerSwitch S5248F-ON and out-of-band PowerSwitch S4148T-ON	<ul> <li>H2O.ai Driverless Al</li> <li>NVIDIA Al Enterprise</li> <li>VMware vSphere Tanzu</li> </ul>	PowerScale F600 or H600

The Validated Design for AI - Automatic Machine Learning helps you simplify ML development to accelerate and improve AI results with confidence.

### **Dell Technologies and H2O.ai**

Dell Technologies and H2O.ai engineering teams collaborate to design tested and tuned systems optimized for your AI and ML workloads. H2O.ai is the creator of the leading open-source ML and AI platform trusted by hundreds of thousands of data scientists driving value in more than 20,000 enterprises globally. The vision of H2O.ai is to democratize intelligence for everyone with award-winning "AI to do AI" data science platforms.



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