

H2O Driverless AI “AI to do AI”



Executive Summary

Artificial Intelligence (AI) is a must-have for every organization today. Whether it is predicting equipment failure, preventing diseases before an outbreak, building anti-money laundering solutions to prevent financial fraud or any number of use-cases, they all require deploying advanced machine learning (ML). AI is instrumental in improving the internal business processes for enterprises as well as in delivering better products and services to their customers. With new machine learning (ML) and Artificial Intelligence (AI) technologies available, every company, large or small, has a lot to be excited about. H2O.ai, the open source leader in AI and machine learning, is empowering every company to be an AI company. H2O Driverless AI platform makes it faster, cheaper and easier to scale ML models to find answers to every business question imaginable.

AI is Expanding the Opportunities for Enterprises

Build products based on AI –

Enterprises are increasingly building products based on AI by understanding customer behavior, product usage statistics, supply chain, buying patterns, demographic data and weather information.

Save time, save money –

With new AI technologies at their disposal, companies are finding new ways to optimize their business processes, automate mundane tasks, mitigate financial risks and adhere to strict regulatory compliance.

Create new revenue opportunities –

Companies are finding new AI-driven ways to increase sales, target consumers, diversify revenue opportunities, and improve product yield.

The Challenges in AI Today

Talent –

Experienced data science resources are scarce. A recent LinkedIn report showed that more than 150,000 data scientist jobs went unfilled just within the U.S. Universities are adding data science and advanced analytics programs, and while novice data scientists are starting to emerge from degree programs, they lack the real-world experience to drive mission-critical projects. Also, individuals in related fields such as data engineering, or even domain scientists, and statisticians are moving into data science to fill the gap. Adding talented new people and people from other areas is a step in the right direction, but these groups lack specific knowledge of data science algorithms and advanced techniques that experienced data scientists use to achieve highly accurate results and create production-ready models.

Time –

The data science process includes feature engineering, hyper-parameter tuning and model selection, at a minimum. Each of these can easily take months even for experienced data scientists. Driverless AI automates these steps and hence empowers data scientists to work on projects faster and more efficiently using automation and state-of-the-art computing power. As a result, the entire process of creating machine learning models can be brought down from several months to just a few weeks or even hours. Driverless AI does the heavy lifting of creating advanced modeling features, comparing thousands of models and tuning the model parameters. These are all the advanced operations that a senior data scientist would perform to optimize model performance. In addition, Driverless AI enables one-button publishing of model results as a prepackaged real-time scoring engine that is easy to deploy.

Trust –

H2O Driverless AI creates models with trust and compliance in mind. A best-in-class machine learning interpretability (MLI) dashboard provides clear explanations of model results, so your team knows exactly how the model works. The platform automatically offers robust model documentation which saves time and ensures transparency in model development. Also, the real-time scoring engine provides reason codes for each score in plain language to explain the key factors driving the result. Driverless AI even provides an easy way to integrate the reason code information into your business applications with a simple API. This is important especially for industries such as financial services and healthcare which are required to adhere to strict regulatory compliances. For example, regulations like GDPR require both an overall explanation of model development and individual reasons for the scoring decisions made by the machine learning models.



We are expecting a rapid adoption of AI in capital markets, as AI models started demonstrating ROI. H2O.ai is at the forefront of the space with Driverless AI, which enables us to inject our domain-specific AI capability into the platform in a consistent manner while protecting in-house IP and staying compliant.



– Ediz Ozkaya, Head of Machine Learning Stats at Goldman Sachs

HOW DRIVERLESS AI IS HELPING COMPANIES ACROSS INDUSTRIES

INDUSTRY	USE-CASES	
Financial Services	Fraud Detection	Anti-Money Laundering
	Personal Consumer Experience	Credit-risk Scoring
Healthcare	Predicting Readmissions in Hospitals	Early Diagnosis and Disease Prevention
	Improved Clinical Workflow	Preventing Hospital Acquired Infections
Insurance	Fraud Prevention	Claims Management
	Churn Reduction by Personalization	
Pharmaceuticals	Predicting Effect of New Treatment	Automated Data Segmentation
	Drug Discovery for Rare Diseases	Targeted marketing of new drugs
Telecommunications	Predicting Truck Rolls	Automated Customer Support
	Churn Prediction by Personalization	
Manufacturing	Predictive maintenance	Supply chain optimization
	Yield prediction	Transportation optimization
Retail	Personalized Product Recommendations	Next Best Offer
	Fraud Detection	Product Assortment and Pricing Optimization
Marketing	Intelligent Lead Scoring	Customer 360 Analytics
	Advertising Spend Optimization	

Why H2O.ai – AI to do AI

H2O.ai offers an award-winning automatic machine learning platform in Driverless AI and has been recognized as an industry leader in the Forrester New Wave™: Automation-Focused Machine Learning Solutions, Q2 2019. H2O, open source, is already being used by hundreds of thousands of data scientists and is deployed at over 18,000 organizations across nearly every industry.

H2O Driverless AI empowers data scientists, data engineers, mathematicians, statisticians and domain scientists to work on projects faster and more efficiently by using automation to accomplish tasks that can take months and can now be reduced to hours or minutes by delivering automatic feature engineering, model validation, model tuning, model selection and deployment, machine learning interpretability, time-series, NLP, automatic pipeline generation for model scoring and automatic documentation with reason codes, and now bring your own recipes and model operations and administration.

The new innovations and capabilities will enable customers to accelerate their AI transformations across every industry.

About H2O.ai

H2O.ai is the open source leader in AI and automatic machine learning with a mission to democratize AI for everyone. H2O.ai is transforming the use of AI to empower every company to be an AI company in financial services, insurance, healthcare, telco, retail, pharmaceuticals and marketing. H2O.ai is driving an open AI movement with H2O, which is used by more than 18,000 companies and hundreds of thousands of data scientists. H2O Driverless AI, an award winning and industry leading automatic machine learning platform for the enterprise, is helping data scientists across the world in every industry be more productive and deploy models in a faster, easier and cheaper way. H2O.ai partners with leading technology companies such as NVIDIA, IBM, AWS, Intel, Microsoft Azure and Google Cloud Platform and is proud of its growing customer base which includes Capital One, Nationwide Insurance, Walgreens and MarketAxess. H2O.ai believes in AI4Good with support for wildlife conservation and AI for academics. Learn more at www.H2O.ai

Customer Case Study

Hortifrut, a leading producer of berries based in Chile.



Hortifrut uses H2O Driverless AI to predict the quality of blueberries at the destination using the GAL information from the origin and the time in transit. Manually tuning model parameters used to take weeks for the data scientist team; with Driverless AI this just takes a few hours.

Customer Case Study

Deserve, a leading credit card company based in California.



Deserve has used H2O Driverless AI for fraud modeling, risk modeling, and underwriting purposes. This has reduced the amount of time it took their data science team to build these models from several months down to just a few weeks.

Win with AI – Get Started Today

AI is critical to success in the modern enterprise today. Driverless AI automates time-consuming steps of the data science process and accelerate the time-to-insights by allowing companies to focus on domain-specific inputs to this process. Contact H2O.ai for more details and to try out Driverless AI for a 21-day free trial at www.H2O.ai