DataRobot | NTT DATA

Designed with the power of **GenAI**

Master Your AI Destiny: From Promise to Performance

Command the complexities, empower your ambitions

Dean Wang
Lead Data Scientist
DataRobot

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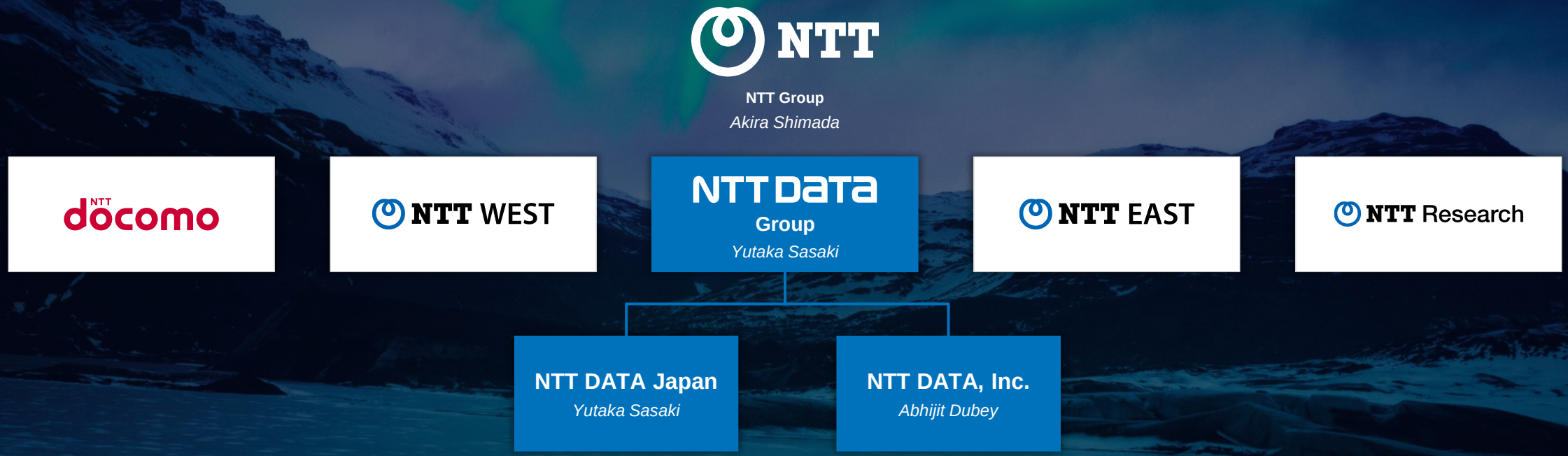
Head of Application Solutions
NTT DATA Malaysia

October 2024

We’re part of the NTT Group

One of the world's largest global telecommunication companies



NTT Group Highlights:

~$100B	**$3.6B+**	**150+**	**75%**	**4th**	**A**	**330K+**
Annual revenue	in annual R&D investment	years in business	of Fortune Global 100 are clients	largest telecom company worldwide	credit rating	professionals employed

Ignite tomorrow, today.

We transform the companies that transform the world

We offer the broadest portfolio, industry expertise and global scale

$30B+
Annual revenue

50+
Countries

3rd
Largest data center provider in the world

10K+
Data, analytics & AI professionals

7
Global data and AI innovation centers

Leader
HFS Horizons: Generative Enterprise™ Services, 2023 report

12K+
AWS, Microsoft, and Google Cloud certifications

Top 10
Global IT Services Provider

4th
Largest IP backbone worldwide

29
Countries NTT DATA is rated a top employer

6th
Most valuable IT Services brand

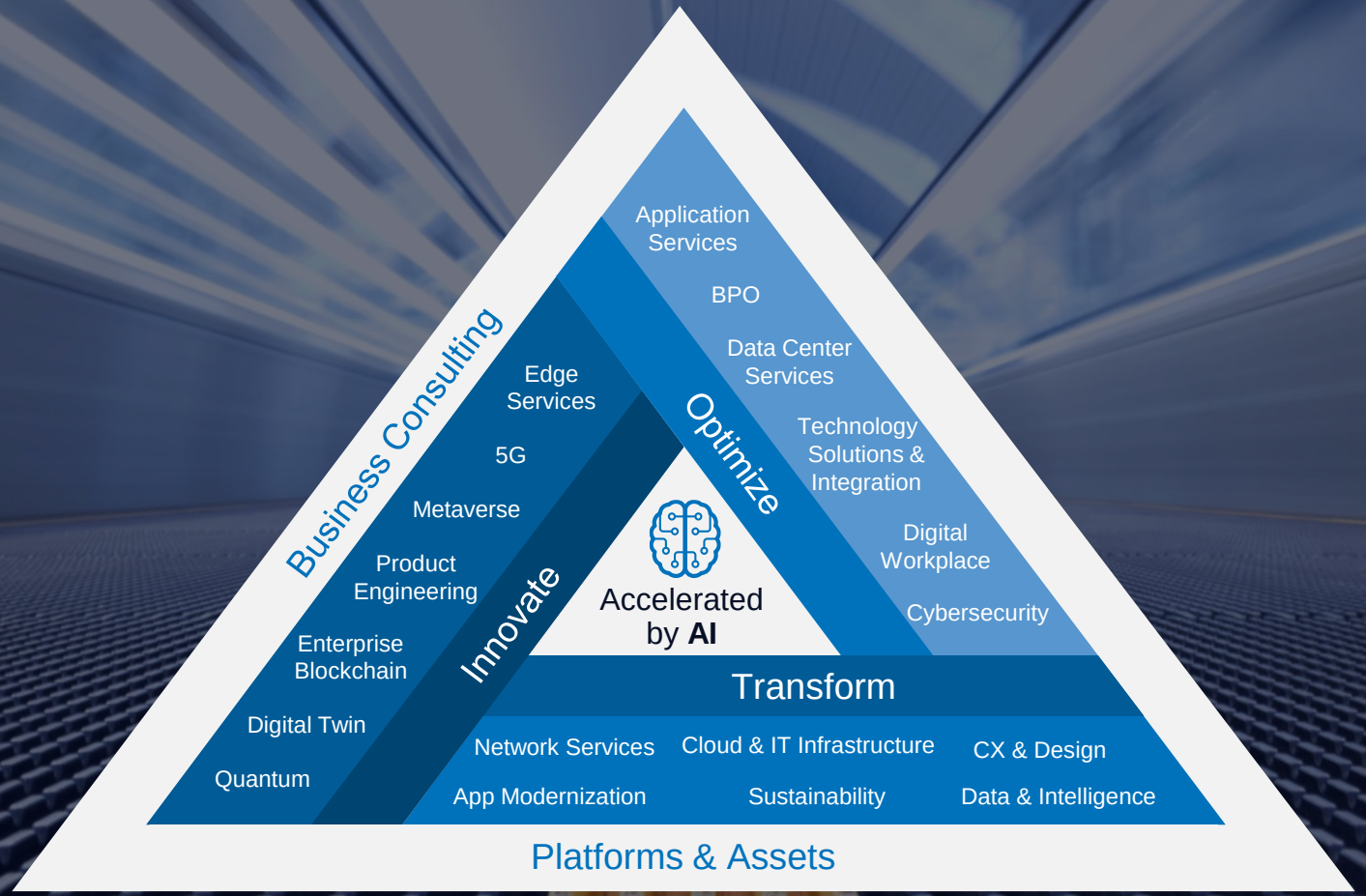
Leader & Star Performer
Everest Group Sustainability Enablement Technology Services PEAK Matrix® Assessment 2024

October 2024

Unrivaled capabilities to support client outcomes

Industry expertise & solutions

Financial Services | Healthcare | Insurance | Life Sciences & Pharma | Higher Education & Research | Logistics, Travel, & Transportation | Public Sector | Automotive | Retail & CPG | Telco, Media & Technology | Energy & Utilities | Manufacturing



NTT DATA Malaysia

38+ years of heritage

1,000+ employees

USD 200+m revenue

Driving success for **500+** clients

6 data centers

MIST submarine cable

Accelerating business transformation through:

- Data Centers & Connectivity
- Cloud & Security Services
- Network & Collaboration Services
- Technology Solutions
- Consulting Services
- SAP Solutions
- Data & Analytics
- BPO Services
- Customer & Employee Experience
- Automation Services

DataRobot

Designed with the power of **GenAI**

Built for leaders, data teams & developers

Pure-play AI Lifecycle Management Platform
Generative and Predictive AI

1T Predictions created using DataRobot

1M AI Projects delivered using DataRobot

15k Models in production and monitored in a single client

Expertise

500+ Engineers & Data scientists

10 Years of AI R&D with a focus on value

1.6M Engineering hours to build the platform

80+ Machine learning patents and innovations

Strategic technology partner of choice

aws · Azure · NUTANIX · SAP · snowflake

Our belief & vision

We believe that AI will enhance **every aspect of business transactions and human interactions** to improve how we live, work, play and stay safe.

For all organizations to adopt **Value-Driven AI** as a core competency to improve how they run, grow, and optimize their business.

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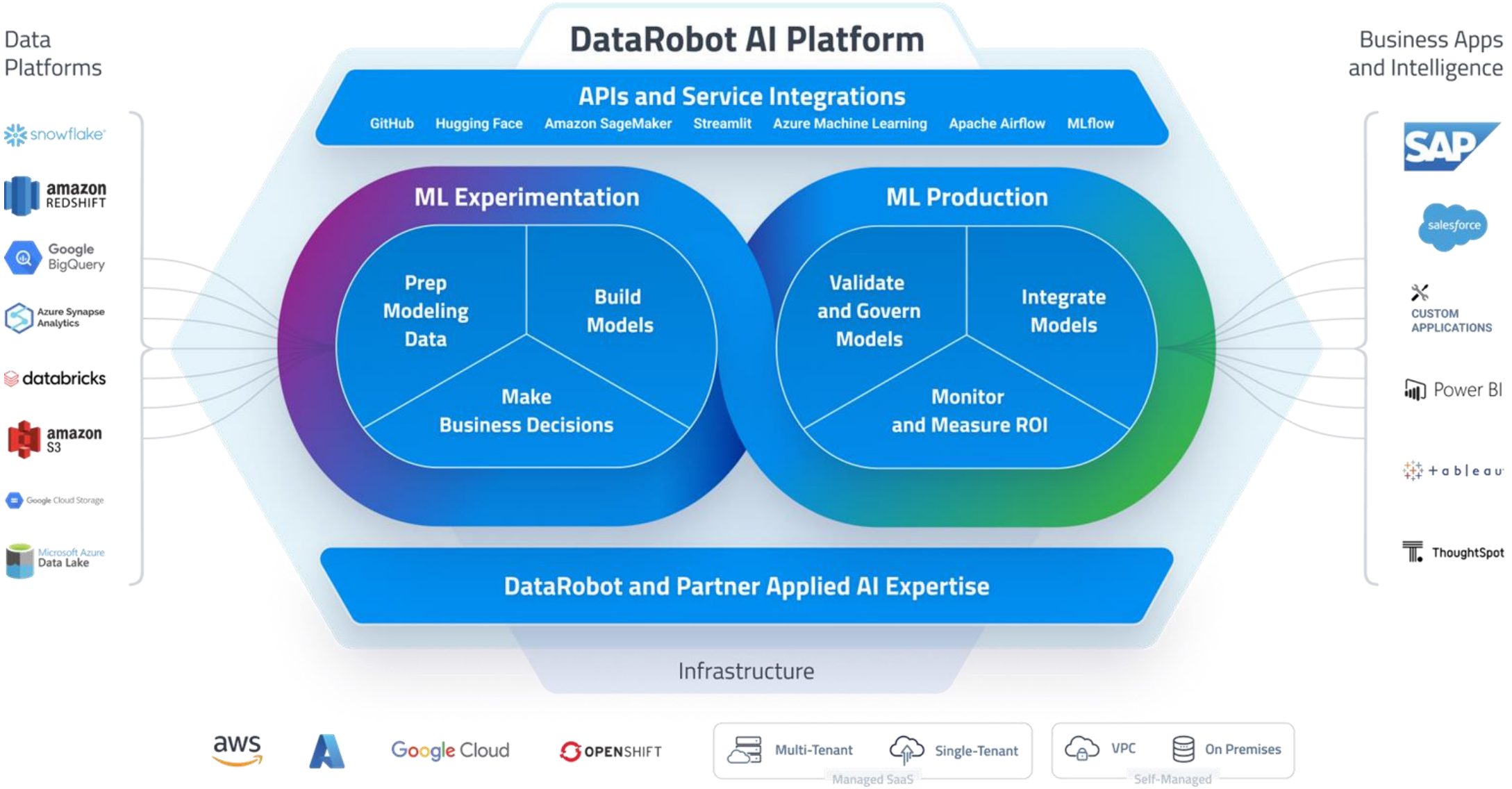
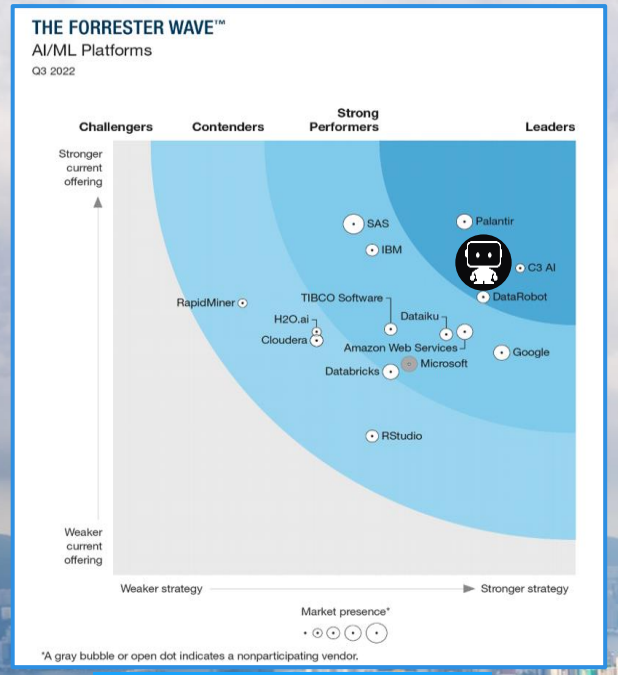
An **end-to-end**, **unified** AI platform

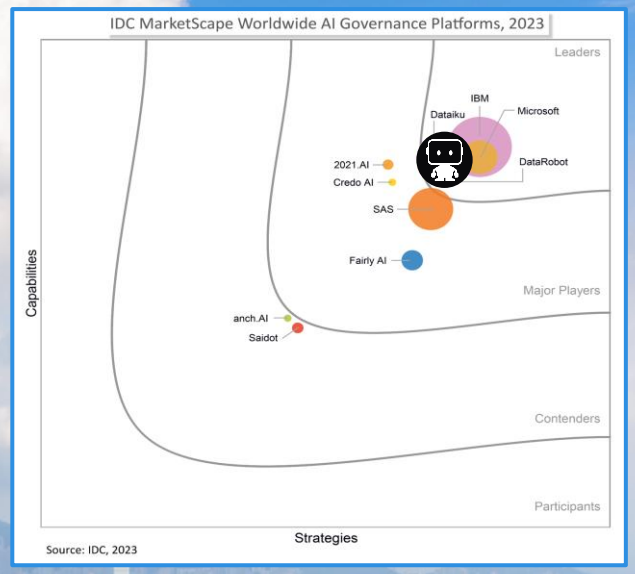


Consistent **Leader** in all AI Platform Assessments

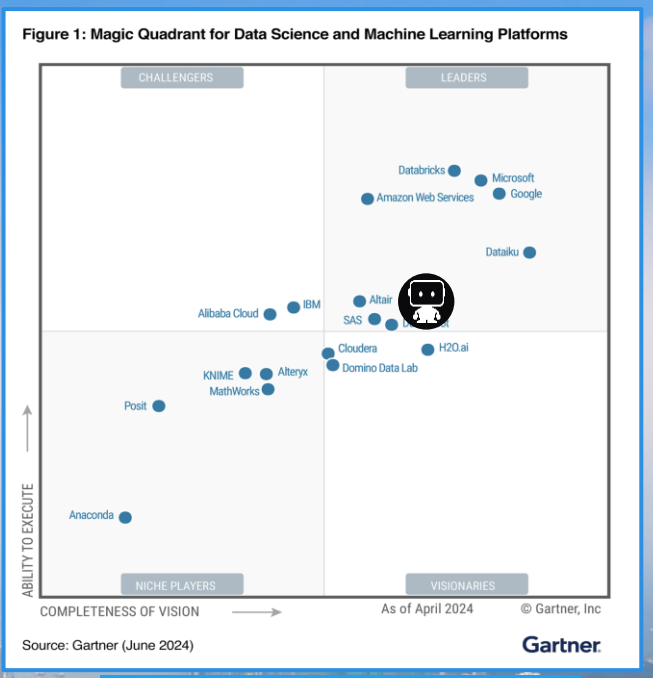


2022 The Forrester Wave™:
AI/ML Platforms

2022 The IDC MarketScape:
Worldwide **MLOps** Platforms
Vendor Assessment



2024 The IDC MarketScape:
Worldwide **AI Governance**
Platforms



2024 Gartner® Magic Quadrant™
for **Data Science** and
Machine Learning Platforms

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8 years of partnership in Japan

5 years of partnership in Malaysia

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Top challenges faced by enterprises in AI & GenAI adoption

Challenges faced by enterprises also depend on what phase of the AI journey is currently on!

#1

Speed Gap

How to realize value of AI fast via automation – build, validate, deploy

#2

Confidence Gap

There is increasing concern on AI ethics, transparency, governance and the challenges to comply to up-and-coming AI framework and regulation

#3

Expertise Gap

Scarcity of talent, Lack of strategy & know-how, and justification of ROV

85% > of AI projects fail

78.5% Singapore airline being on time

80.2% Passing driving test on first try

83.7% Kobe Bryant scores a free throw

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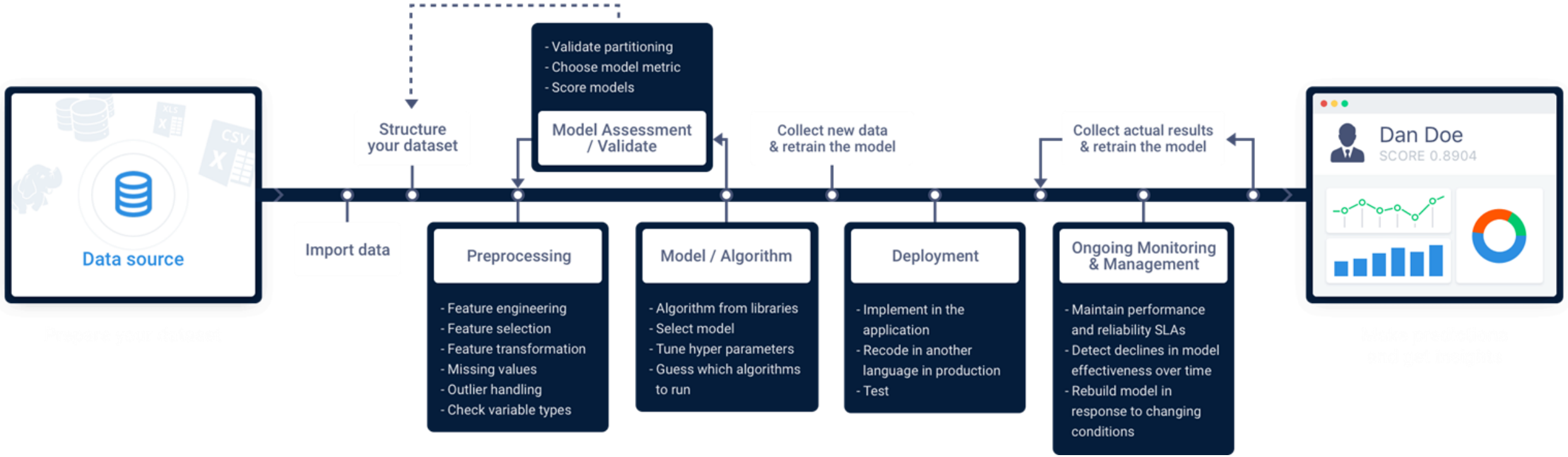

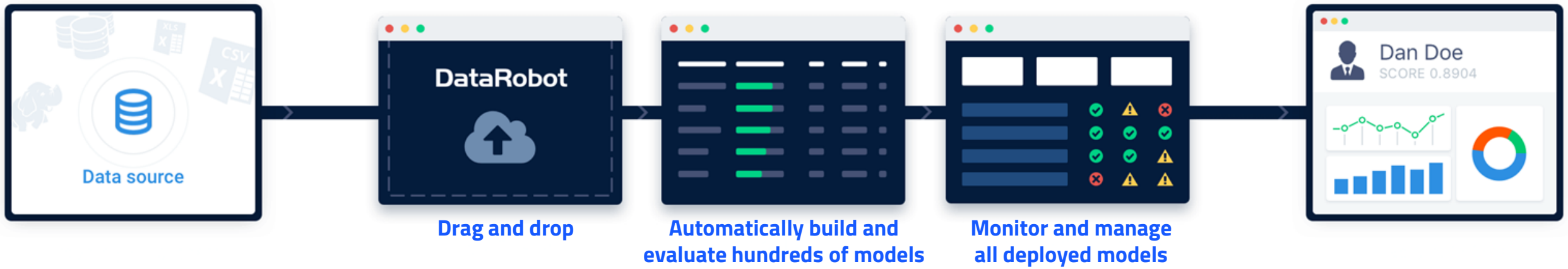

Drag and drop

Automatically build and evaluate hundreds of models

Monitor and manage all deployed models

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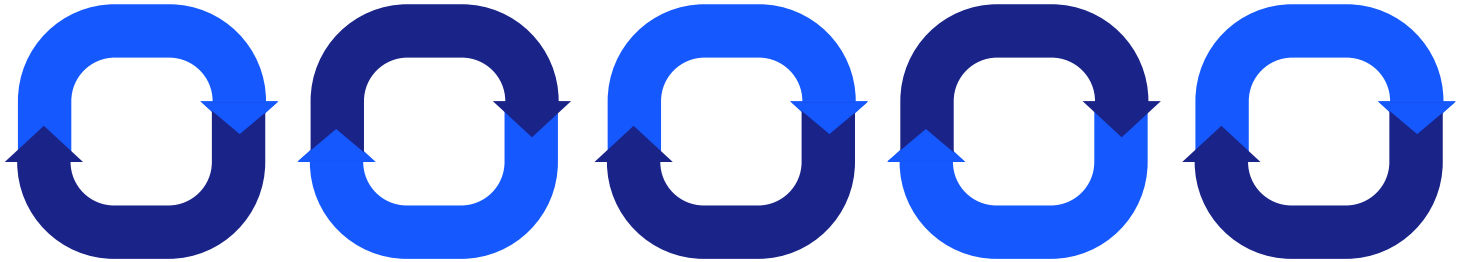
Automation — closes the speed gap

- Long time to iterate and revise
- Cost of error is high
- Locked-in with initial hypothesis



- Rapid experiments and iterations
- Fail early and fail fast
- Various options to solve the problem

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PredAI

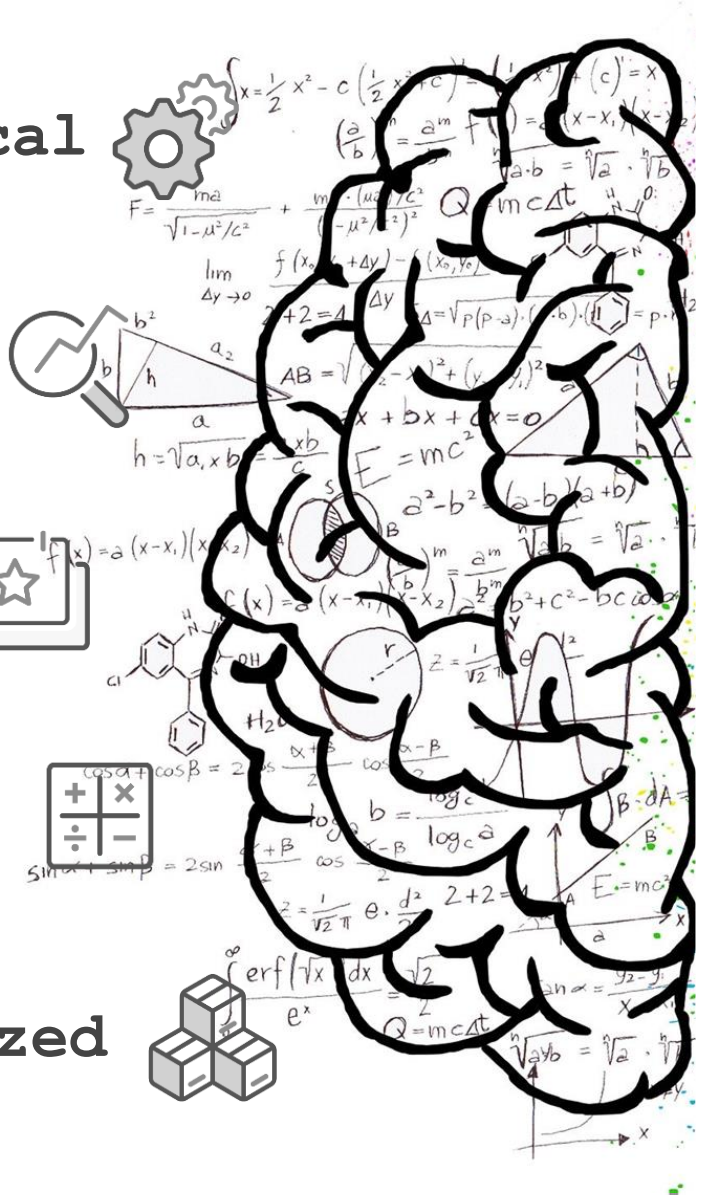
Logical

Focus on facts

Planned

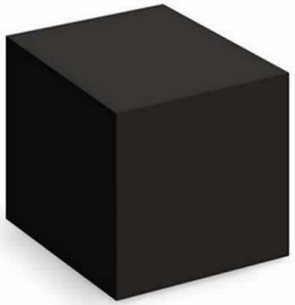
Math-minded

Organized



Unfair selection

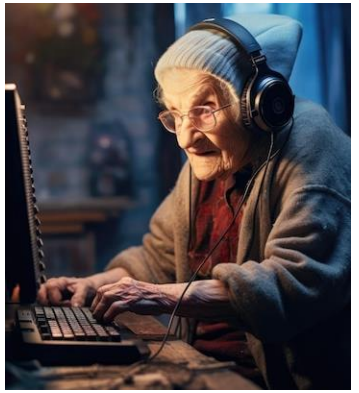
Black-box AI



Overfitting

WWII German soldier

“Grandma” hack



Sole Titanic suvivor

Governance — closes the confidence gap

Compliance

Explainability

Bias & Fairness

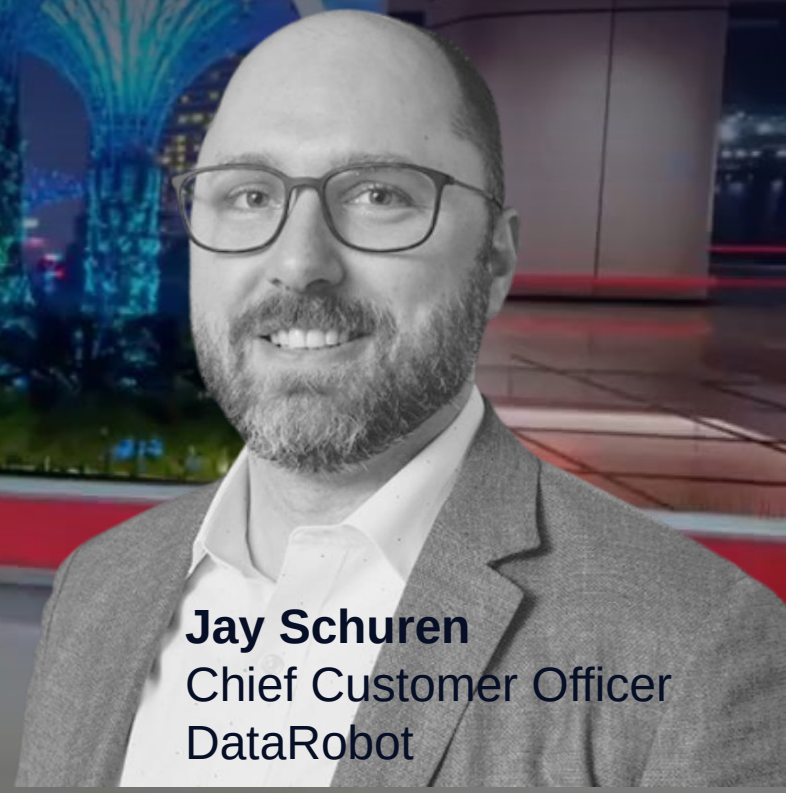
Monitoring

Guardrails

Traceability

DataRobot is thrilled to partner with IMDA to make LLM evaluation more accessible.

The integration of **Project Moonshot** into the DataRobot AI Platform allows AI builders to **confidently** and **responsibly** scale generative AI within their organizations.



Jay Schuren
Chief Customer Officer
DataRobot

C2.0 RESPONSIBLE PRINCIPLES FOR SECTOR PLAYERS

2.1 RESPONSIBLE PRINCIPLES AND ETHICS

As artificial intelligence (AI) continues to revolutionize various sectors, sector players need to embrace responsible AI practices in alignment with the seven AI principles and ethics to demonstrate their commitment to ethical AI practices and build public trust in their products and services. This, in turn, can lead to positive outcomes, enhanced consumer loyalty, and contribute to the responsible development and deployment of AI technologies. This can also be implemented even when a sector player is only adhering to the contract and specifications of the hiring party.

1. FAIRNESS

Ensure that AI systems are unbiased and treat all individuals fairly, regardless of their race, gender, ethnicity, or other characteristics. This involves considering diverse perspectives during the design phase and implementing measures to mitigate bias in data and algorithms.

2. RELIABILITY, SAFETY AND CONTROL

Prioritize the reliability and safety of AI systems, ensuring they perform as intended and avoid harmful outcomes, This includes rigorous testing, monitoring, and implementing fail-safe mechanisms to prevent unintended consequences. Also providing users with control over AI systems enables them to intervene when necessary and mitigate potential risks.

3. PRIVACY AND SECURITY

Uphold the privacy rights of individuals and safeguard sensitive data collected or processed by AI systems; implementing robust security measures and adhering to relevant privacy regulations to protect user data from unauthorized access or misuse.

Designers, Developers, Technology Providers & Suppliers

4. INCLUSIVENESS

Prioritize accessibility features and consider the diverse needs and perspectives of all users throughout the design and development process.

5. TRANSPARENCY

Provide clear and understandable explanations of how AI systems work, including their capabilities, limitations, and potential impacts on users and society. This involves transparent communication about data usage, algorithmic decision-making processes, and potential biases.

6. ACCOUNTABILITY

Take responsibility for the outcomes of AI systems and be accountable for any unintended consequences or harms they may cause. This includes establishing mechanisms for redress and ensuring that users have avenues for addressing grievances or seeking recourse in case of adverse outcomes.

7. PURSUIT OF HUMAN BENEFIT AND HAPPINESS

Aligning AI objectives with societal values and prioritizing applications that have positive impacts on individuals and communities.

PART C

2.2 RESPONSIBLE AI ALGORITHM DEVELOPMENT

The AI algorithm is the core component of an AI system, and responsible AI algorithm development is essential to uphold ethical standards, ensure fairness, and mitigate potential biases. There are two main components of AI algorithm development: model building and model interpretation. model building often uses historical data/ memory/ and/or expert knowledge by humans and/or by automated tools to aggregate data automatically into the algorithm.

Model building involves the process of designing and training the AI model. It often relies on historical data, human expertise, and automated tools to aggregate and process data. During this process, it is important to consider the objectives of the AI system, such as the desired output variables, and the performance measures, such as the accuracy and representativeness of the dataset.

Model interpretation is the process by which humans and/or automated tools derive outcomes from the AI model, such as recommendations, predictions, or decisions. In some cases, a model may offer a single recommendation based on deterministic rules, while in other cases, such as probabilistic models, a range of recommendations may be provided along with associated performance measures like confidence levels or risk assessments.

Responsible AI during algorithm development is crucial for sector players to uphold ethical standards, ensure fairness, and mitigate potential biases. By prioritizing data collection, transparency, ethical considerations, validation, user feedback, and ongoing monitoring, sector players can contribute to the development of AI algorithms that are trustworthy, unbiased, and aligned with societal values.

Responsible AI algorithm development involves several key practices:

Data Collection: Ensuring that the data used to train AI models is diverse, representative, and free from biases. This includes considering potential sources of bias in the data and taking steps to mitigate them.

Transparency: Providing explanations and justifications for the decisions made by AI algorithms. This includes making the decision-making process transparent and understandable to users.

Ethical Considerations: Incorporating ethical considerations into the design and development of AI algorithms. This involves identifying potential ethical challenges and addressing them proactively.

Validation: Conducting rigorous testing and validation to ensure that the AI algorithm performs as intended and is reliable and accurate.

User Feedback: Incorporating user feedback into the algorithm development process. This includes actively seeking input from users and incorporating their perspectives and needs into the design of the AI system.

Ongoing Monitoring: Continuously monitoring the performance and impact of AI algorithms to identify and address any biases, risks, or unintended consequences that may arise.

PART C

3.2 ADOPT NATIONAL GUIDELINES AIGE FRAMEWORK

The governance process for an AI system involves several key steps to ensure ethical and responsible AI development and deployment:

Establish a Data Governance System

Gather relevant data from various sources, ensuring that it is representative and unbiased.

Data Annotation: Annotate and label data accurately, clearly defining what each data point represents. Implement data privacy and security measures to protect sensitive information and ensure compliance with privacy regulations.

Choose an appropriate machine learning model based on the nature of the problem and available data. Train the model using the collected and annotated data. Validate the model's performance on a separate dataset to assess its generalization capabilities and mitigate overfitting. Deploy the trained model in the intended application or system.

User interaction where to ensure that users understand the system's capabilities, limitations, and potential biases. Encourage users to provide feedback and report issues related to system behavior. Also need to adhere to 7 AI principles and guidelines, such as fairness, transparency, accountability, and non-discrimination. Also to comply with applicable laws and regulations governing AI use in the specific domain or region.

To **continuously monitor the AI system's performance and behavior** in real time.

Detect and address data drift or changes in data distribution. Monitor for biases in model predictions and correct them as needed. Subsequently implement a controlled process for updating the AI model, ensuring thorough testing and validation before deployment.

Emergency Shut-off

Design an emergency shut-off mechanism to disable the system in case of unexpected behavior or ethical concerns.

PART C

Develop a **performance measurement index** that includes metrics related to ethics and responsible AI, such as fairness, bias, explainability, and accountability. Regularly evaluate the AI system's performance against these ethical metrics and track improvements or issues over time. Conduct regular assessments to validate the AI system's behaviour against the 7 AI principle and objectives. Assess the system's impact on stakeholders, including any unintended consequences or ethical concerns.

Perform a **comprehensive risk analysis** to identify potential risks associated with the AI system's use. Mitigate identified risks through appropriate measures, such as bias reduction techniques, transparency enhancements, or policy adjustments.

Establish a **feedback loop** that integrate users feedback, monitoring results, and risk analysis findings into the AI governance process. Continuously refine and improve the AI system based on feedback and evolving ethical considerations.

Lastly **maintain comprehensive documentation** of the AI governance process, including data sources, model architecture, ethical considerations, and actions taken.

Report on AI system behavior, performance, and ethical standards adherence to relevant stakeholders, including users, regulators, and the public. Adopt the AI governance process as needed to address emerging ethical challenges, technological advancements, and changes in regulations.

PART C

Closing the expertise gap

The NTT DATA's approach

Through our expertise, co-innovation approach, and fit-for-purpose solutions, we guide you from AI/GenAI strategy to execution, focusing on talent, change management, governance, ethics, and innovation.

1. Ethics & responsibility

2. Strategy & governance
enterprise framework

Optimize AI / GenAI investments, avoid "first mile" problem:

- Anchored to core business objectives,
- Balances innovation with risk tolerance,
- Use case prioritization

- AI / GenAI maturity assessment
- AI / GenAI governance at scale
- AI / GenAI adoption at scale

3. Tools, technology & transformation
as a scaled capability use cases that enable tangible value

Build a technology foundation that will enable AI / GenAI at scale:

- Modular
- Scalable
- Multi-faceted

- AI Labs to implement multiple use cases
- Partnerships

Roll-out specific use-cases to integrate AI / GenAI to targeted business function:

- Spare part identification
- Personalized Knowledge Assistant, etc.

- AI PODs
- Use case engineering
- AI / GenAI payoff matrix (investment vs value)

4. Talent & training

Our global Data & AI team

Our Data & AI expertise offers end-to-end AI services with a global delivery capability.

Our global GenAI office transforms both our internal operations and client value chains.

We are committed to using AI to drive innovation and improvements across our business and client services.

10,000+ data, analytics & AI experts	**40 years** of continuous AI R&D
7 global data & AI innovation centers	**1** Generative AI office

Your partner in AI success

Designed with the power of **GenAI**

We help you innovate for measurable results. Through a partnership of cocreation, we deliver data science expertise and ethical AI solutions for operational excellence and business growth.

Data Scientist as a Service

Data preparation and merging

Ensure data quality and consistency for accurate AI modeling.

Data visualizations

Gain actionable insights through clear and informative visualizations.

Feature engineering

Develop AI models tailored to your specific business needs.

Machine learning modeling

Leverage our expertise in various modeling techniques, including classification, regression, time series, and clustering, to address your unique challenges.

Model deployment

Seamlessly integrate AI models into your existing workflows.

Model governance and monitoring

Leverage MLOps to ensure ongoing performance monitoring and adherence to ethical AI practices.

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Malaysian FSI success case

Designed with the power of **GenAI**

Closing the speed and expertise gaps

Development to production timeline

Average model building time

1 month

Launched in production

2 models

Average validation & fine-tuning time

1~2 months

Developed and under finalization for deployment

3 models

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Harness AI's transformative power on your own terms

There is increasing demand in **Sovereign AI** with data privacy and data residencies concerns

AI in a Box

Preconfigured, ready-to-deploy **Nutanix** & **DataRobot** stack, powered by **HPE Proliant**

DataRobot

Hewlett Packard Enterprise

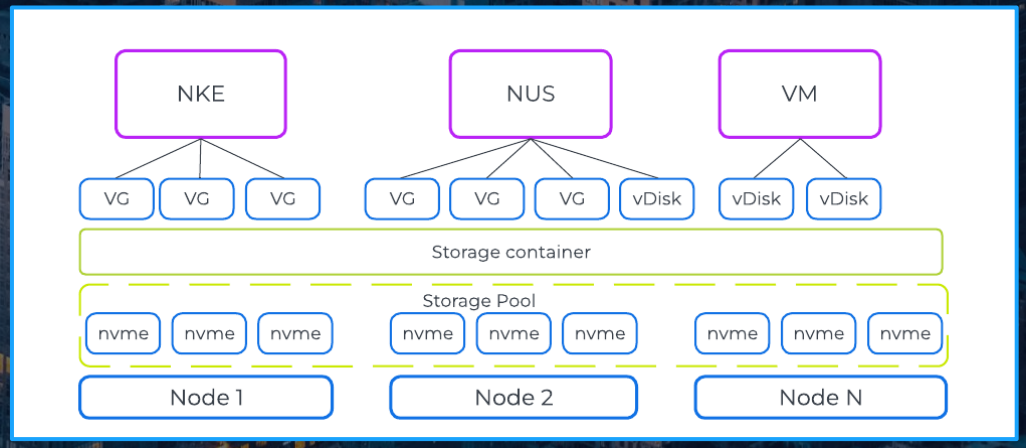
NUTANIX

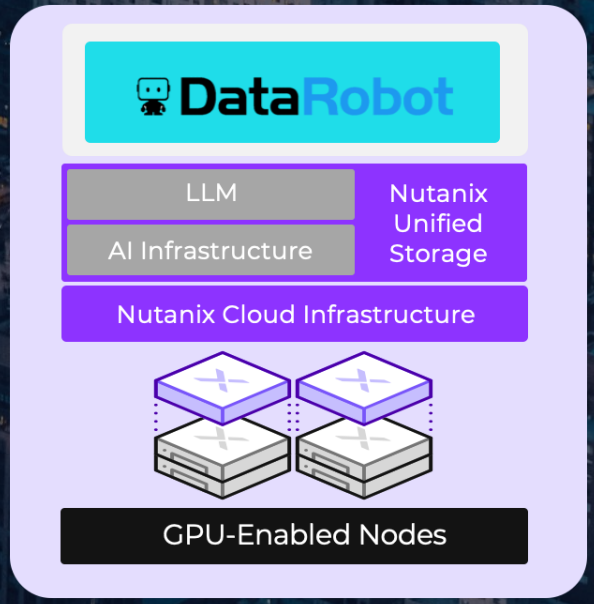
Hyperconverged architecture

3-Node HPE DX380 Gen11
- 2 * Intel Xeon-Gold 6426Y 16-Core
- 768 GB Memory

Storage
- Nutanix hyperConverged storage
- 50 TB effective capacity

Integrated Software
- Acropolis Hypervisor





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See us in action!

Demo @ our booth

Sign up for NTT DATA's deep-dive workshop with DataRobot
(post #CDAOMalaysia)

Are you ready for an #AI future?

10:50AM

See DataRobot in Action:
Democratizing Machine Learning & AutoML

1:30PM

Lunch & Learn: Closing the GenAI Confidence Gap
Applying Guardrails & Context to your GenAI Solutions

4:00PM

Case in Focus: **Modernizing Credit Scoring with Tailored ML using DataRobot**

Complete a short survey 

to participate in a

special prize draw