Title: Leveraging Artificial Intelligence in Scaled Agile Framework (SAFe)

Presenter: Farzad Moshfegh

Agile Delivery Lead and Coach

MBA in Agile Project Management – SAFe POPM-SAFe RTE-SAFe SPC - CSM Senior ScrumMaster-

- What can you expect from this presentation?

  Who am I? (My story in Agile)
  What is Scaled Agile Framework (SAFe)?
  The Role of Artificial Intelligence (AI)
  What does AI mean?
  Benefits of Integrating AI into SAFe
  AI Applications in Different SAFe Levels
  Overcoming Challenges
  QA

Who am I?

Passion

- Industrial Engineering vs Professional Swimmer

  - Efficiency
  - Productivity
  - Automation
  - System thinking
  - Process Reengineering

Project Support Engineer
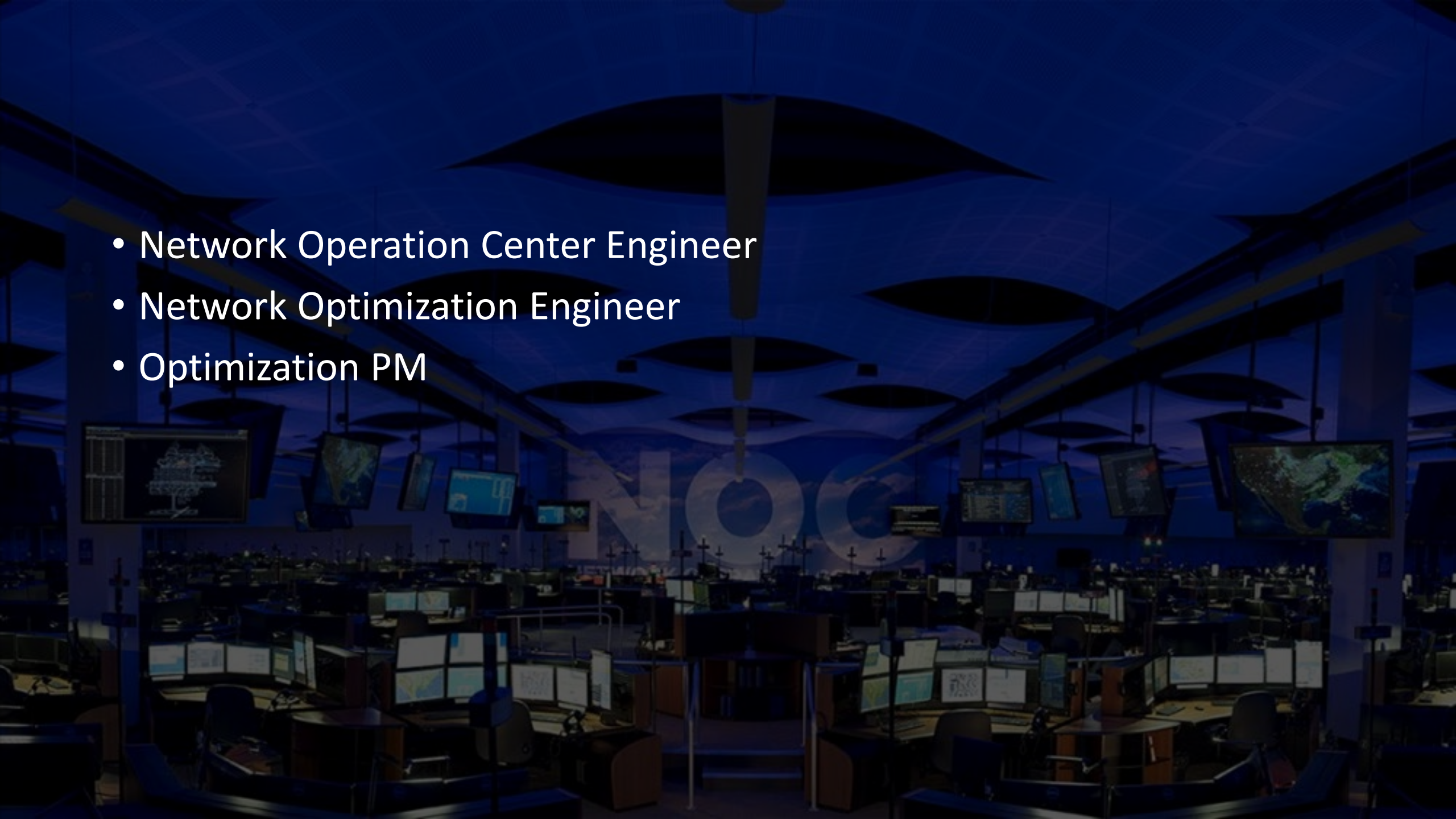
- First prepaid mobile (Telecom-Company) product in IRAN

- Network Operation Center Engineer

- Network Optimization Engineer

- Optimization PM

- Invested in my MBA with concentration in Agile Project Management at Golden Gate University in downtown San Francisco in 2013

- Graduated with high honors.

- Established Persian Club using my Scrum skills.

Happy Couple

- Hiking
- Road Trips
- Camping
- Everything Outdoor
- Dream: Road Trip to Alaska

Native Apps Teams

- iOS and Android Team
- Technical Program Manager
- ScrumMaster

Account Payout Network
Risk and Fraud Data and Machine Learning
Omni Channels

- Program Manager
- Senior ScrumMaster
- SAFe Release Train Engineer

Business Deposit Team

- Senior ScrumMaster

Web Applications Teams

Managed 4 Scrum teams
Senior Technical Program Manager
Senior ScrumMaster

Enterprise Agile Coach

EQUINIX

® Senior Agile Delivery Lead

Founded Scrumiz 2022

CEO and Co-Founder

- Scrumiz is an Agile boutique
- Comprehensive Bootcamp
- Agile + AI Combo Consulting Firm

Introduction

- Brief overview of Scaled Agile Framework (SAFe)

- Importance of adopting emerging technologies like Artificial Intelligence (AI)

- Purpose of the presentation: Exploring the integration of AI into SAFe

What is Scaled Agile Framework (SAFe)?

- Definition and key principles of SAFe

- SAFe's focus on scaling Agile practices across large enterprises

- Benefits of SAFe:
  - Improved collaboration,
  - Faster time-to-market,
  - increased quality

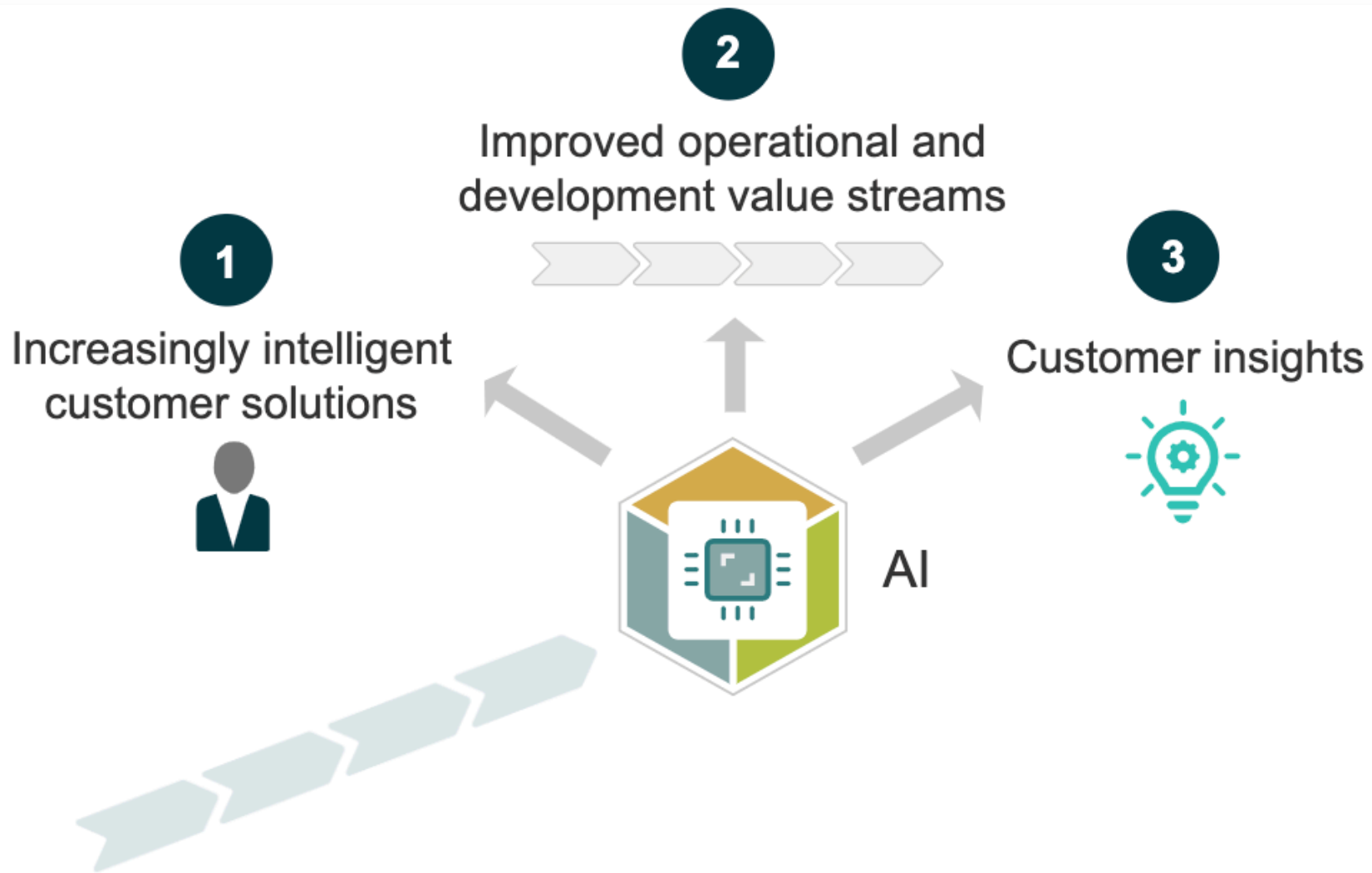# The Role of Artificial Intelligence (AI)

- Definition of Artificial Intelligence (AI)

- AI's potential to enhance various business processes

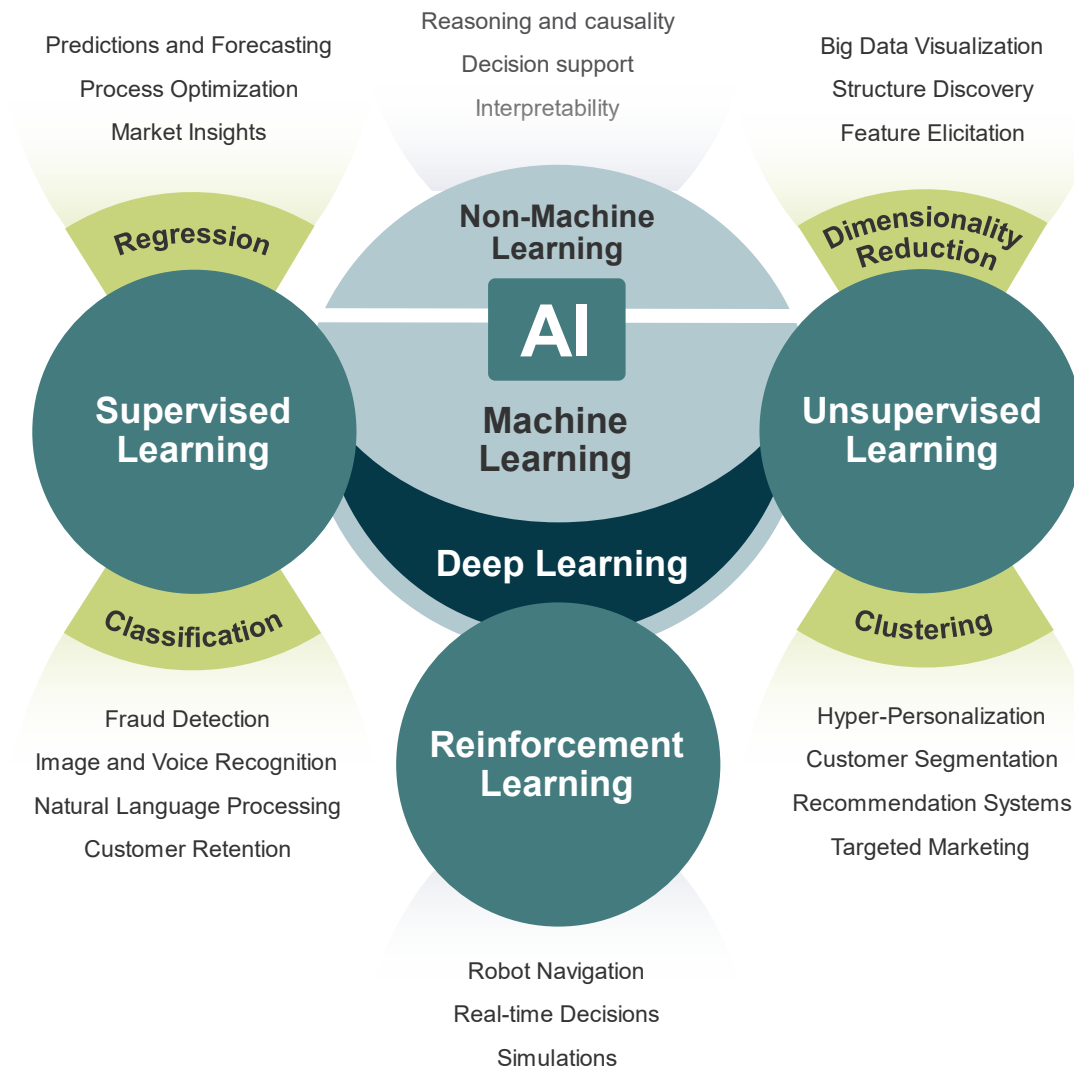- Alignment of AI with Agile and SAFe principles

The trend is clear:

- A startling 72% of executives believe that AI will be the most significant business advantage of the future.

- According to a PwC survey performed in 2020, 86% of respondents said AI would become a "mainstream technology" at their company in 2021. By 2025, 70% of organizations will have operationalized AI architectures.

- Artificial Intelligence, deep learning, machine learning — whatever you're doing if you don't understand it — learn it. Because otherwise, **you're going to be a dinosaur** … — Mark Cuban, American billionaire entrepreneur

1 Increasingly intelligent customer solutions

2 Improved operational and development value streams

3 Customer insights

AI

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Inputs

Model Outputs

labels

"Truck"

"Scooter"

"Car"

"Truck"

"Scooter"

"Car"

"Bus"

Model

"Truck" ✔

"Bus" ✘

"Car" ✔

Learning Algorithm

Data

Supervised Learning

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Model

Learning
Algorithm

Data

Unsupervised Learning

Reward function

Model

Learning
Algorithm

Data

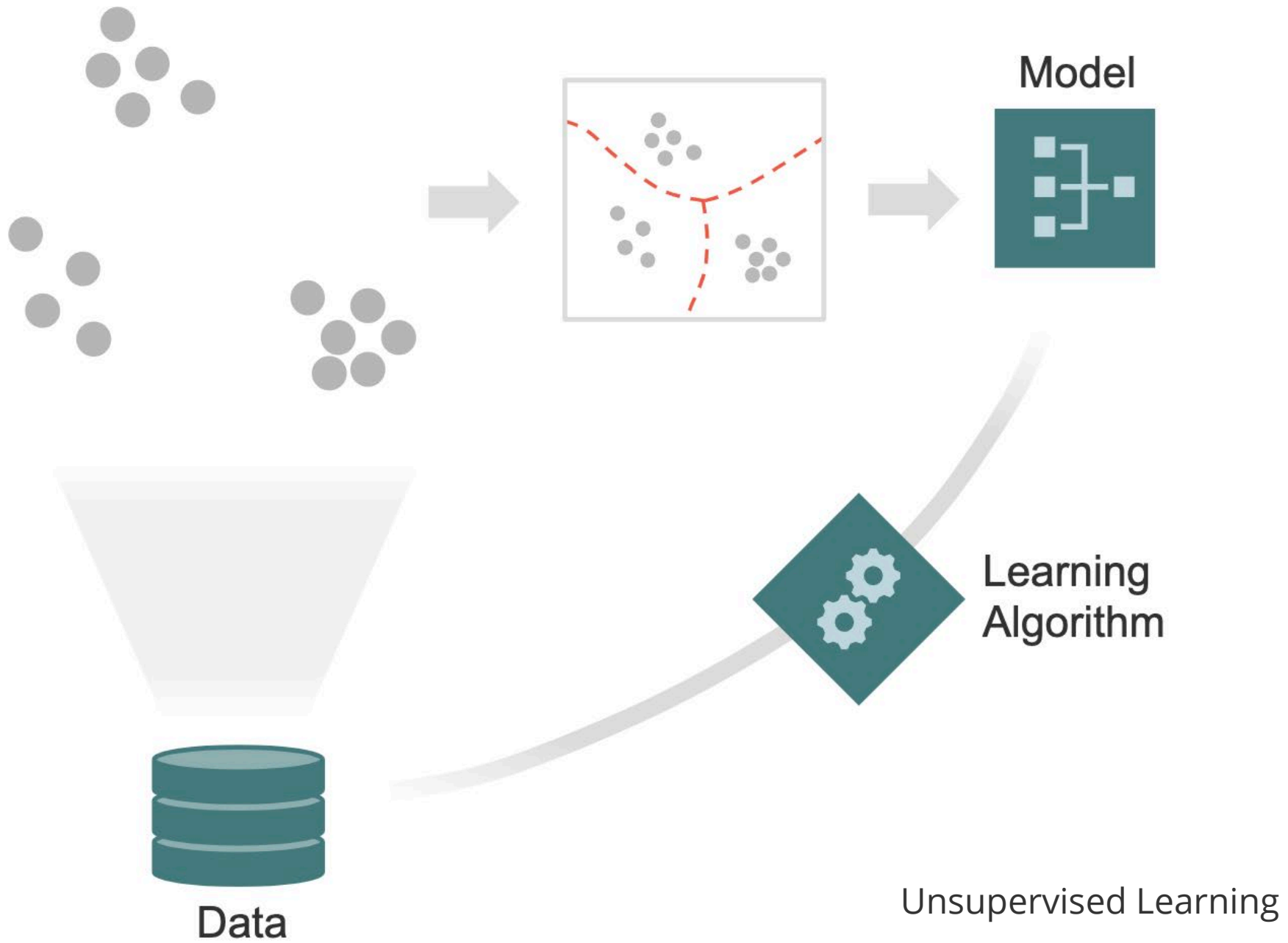Reinforcement Learning
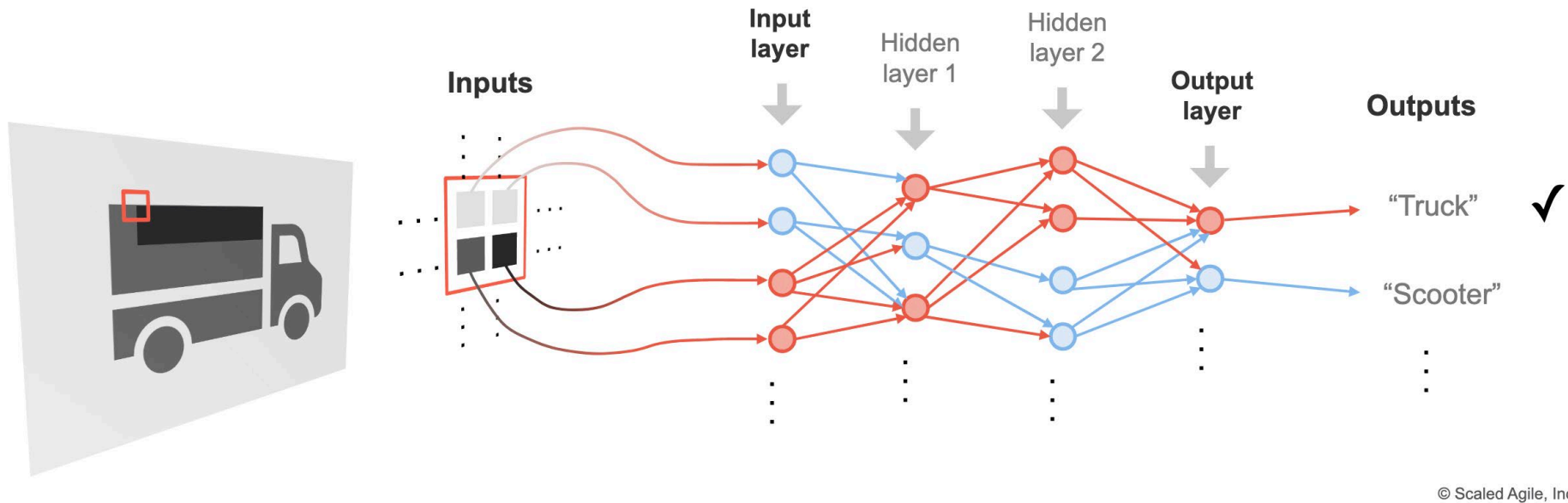
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Figure 8. A deep neural network applied to pattern recognition

Deep Learning

1 Alignment with strategy

2 Customer centricity

AI Decision-Making Framework

3 Continuous exploration

4 Empirical milestones

System Demos

I&A

Define → Pilot → Operationalize → Scale → Govern

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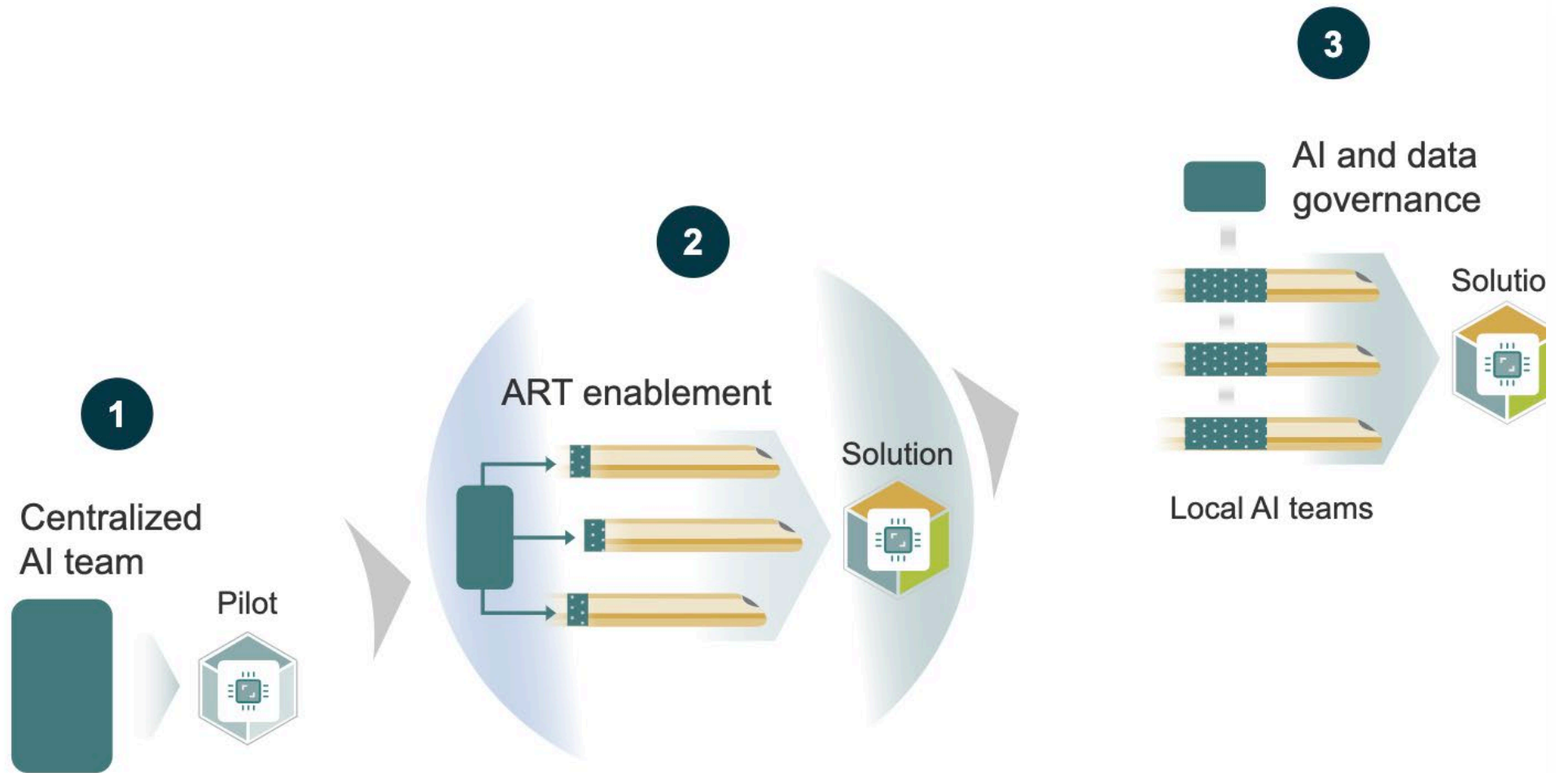
Benefits of Integrating AI into SAFe

Improved data-driven decision-making

Enhanced predictive analytics for better planning and forecasting

Automation of routine tasks, reducing manual effort

Real-time monitoring and continuous improvement

Example: AI-Driven PI and Release Planning

Traditional release planning challenges

Utilizing AI for data analysis, capacity estimation, and risk assessment

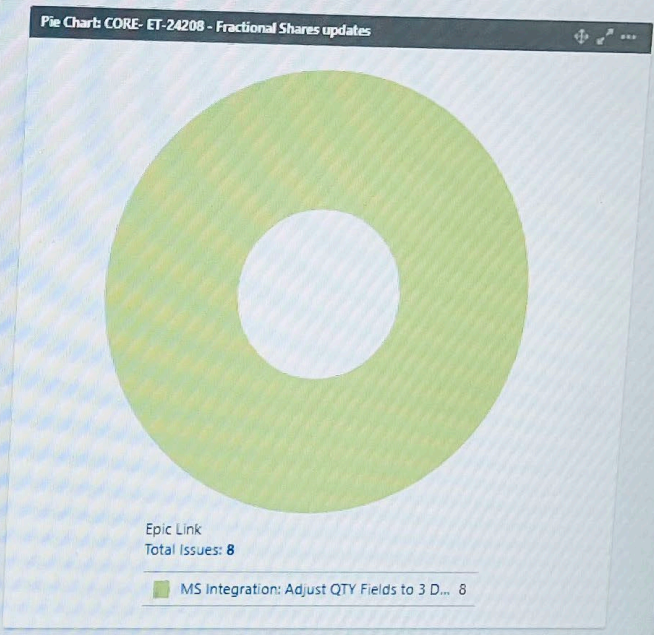Achieving more accurate and adaptable release plans

ware   Dashboards ⌄   Projects ⌄   Issues ⌄   Tempo ⌄   Boards ⌄   Plans ⌄   Links ⌄   Tests ⌄   Create

Search

CORE- ET-24208 - Fractional Shares updates

## Filter Results: CORE- ET-24208 - Fractional Shares updates Epics

Add gadget   Edit layout

T	Key	Summary	E2E Testing Start Date	E2E Testing End Date	E2E Testing Status	Health	Fix Version/s	Parent Link	Current Status
	CORE-12429	MS Integration: Adjust QTY Fields to 3 Decimal, Points	01/Aug/22	25/Aug/22	Not Started	●○○ Green	22.09	ET-24208 Digital impact: Fractional Shares updates from 5 decimal places to 3 decimal places	CORE started picking up user stories 4/7 Milestones: In sprint Integration " Release Certified " -July 29th. E2E Integration testing- Aug 1st to Aug 25th UAT E2E Regression Aug 26th - Sep 13th. PRD Sep 16th Risks: Web trade and stock plan requirements are not written Confluence Page: https://confluence.corp.etradegrp.com/display/INITIATIVES/ET-24208+Digital+impact%3A+Fractional+Shares+updates+from+5+decimal+places+to-Jira Dashboard: https://jira.corp.etradegrp.com/secure/Dashboard.jspa?selectPageId=28657

1–1 of 1

Pie Chart: CORE- ET-24208 - Fractional Shares updates

Epic Link
Total Issues: 8

🟩 MS Integration: Adjust QTY Fields to 3 D... 8

Filter Results: CORE- ET-24208 - Fractional Shares updates

T	Key	Summary	Assignee	Status	Epic Color	Epic Link	Story Points	Fix Version/s	CR #	Sprint
	CORE-13992	[xeon] Fractional shares (qty 3 Decimal Points): Update logic to use new pilot/converted flags	Montes Carrillo, Jorge	IN CODE REVIEW		MS Integration: Adjust QTY Fields to 3 Decimal Points	3			Core- Sprint 118- 4/7- 4/20, Core- Sprint 117 - 3/24- 4/6
	CORE-13991	[react-positions] Fractional shares (qty 3 Decimal Points): Update logic to use new pilot/converted flags	Unassigned	CANCELLED		MS Integration: Adjust QTY Fields to 3 Decimal Points				Core- Sprint 118- 4/7- 4/20
☑	CORE-13378	QA Testing: [Fractional Shares] Ensure that a non-pilot, non-converted user can continue to enter QTY out to 5 decimal places	Unassigned	READY FOR WORK		MS Integration: Adjust QTY Fields to 3 Decimal Points	5			
	CORE-12575	Testing only: [Fractional Shares] : For Pilot or Converted user: display up to 3 Decimal Points on Positions / Gains & losses	Unassigned	READY FOR DEV		MS Integration: Adjust QTY Fields to 3 Decimal Points	5			
☑	CORE-12484	QA Testing: [Fractional Shares] Ensure that Positions and Watch List Trim "0" from 4th and 5th Decimal Place	Unassigned	CANCELLED		MS Integration: Adjust QTY Fields to 3 Decimal Points				
	CORE-12480	[Fractional Shares] angular: For Pilot or Converted user: Accept Up to 3 Decimal Points on Manage Watch List	Venkatesan, Banu Pratheepa	RELEASE CERTIFICATION		MS Integration: Adjust QTY Fields to 3 Decimal Points	3			Core- Sprint 112 - 1/13-1/26
	CORE-12479	[Fractional Shares] Accept Up to 3 Decimal Points on Margin Calculator	Karthik Kathirvel (Inactive)	OPEN		MS Integration: Adjust QTY Fields to 3 Decimal Points	3			Core- Sprint 112 - 1/13-1/26

Pie Chart: CORE- ET-24208 - Fractional Shares updates
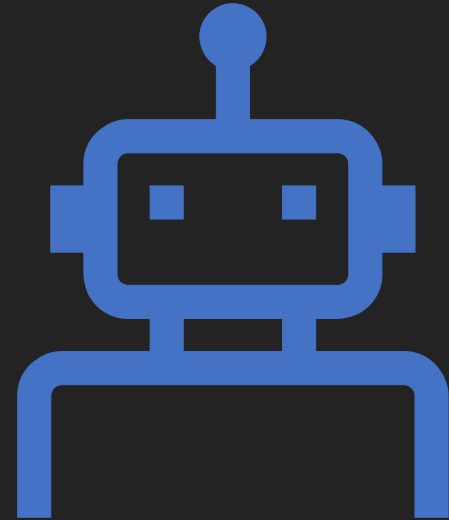
Status
Total Issues: 8
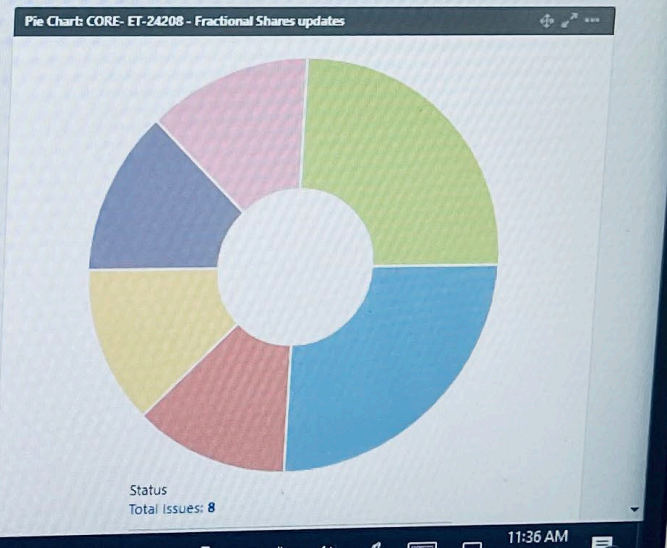
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Test Driven Development (TDD)
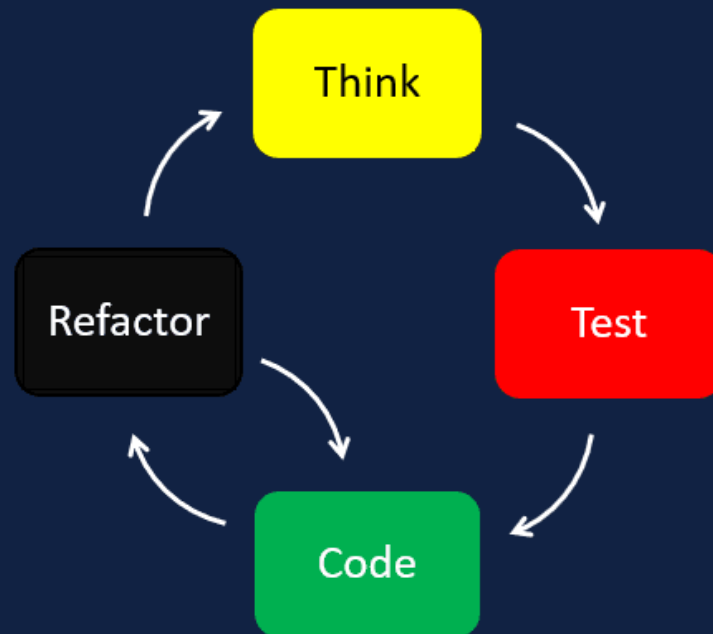
AI-Powered Continuous Integration and Continuous Delivery (CI/CD)

- AI-driven code review and quality assurance

- Automated performance testing and deployment optimization

- Faster and more reliable CI/CD pipelines

AI Applications in Different SAFe Levels

TEAM LEVEL: AUTOMATED TESTING, CODE REVIEW, AND CONTINUOUS INTEGRATION

PROGRAM LEVEL: PREDICTIVE ANALYTICS FOR FEATURE PRIORITIZATION

LARGE SOLUTION LEVEL: RESOURCE ALLOCATION OPTIMIZATION USING AI ALGORITHMS

PORTFOLIO LEVEL: AI-DRIVEN MARKET ANALYSIS AND STRATEGIC PLANNING

Companies that use AI in their SAFe adoption

1. **Intel:** Intel has been known to leverage AI to enhance their SAFe practices, including using AI for data analysis and decision-making to improve their Agile release trains.

2. **Ericsson:** Ericsson, a telecommunications company, has explored the use of AI to optimize and automate various aspects of their SAFe implementation, including release planning and resource allocation.

3. **Siemens Healthineers:** Siemens Healthineers has utilized AI and machine learning to support their SAFe implementation by improving data analysis, optimizing resource allocation, and enhancing collaboration among development teams.

4. **Nokia:** Nokia has integrated AI into its SAFe practices to help with release planning, risk assessment, and resource management. AI-driven insights assist in making data-driven decisions for their Agile teams.

5. **Capgemini:** Capgemini, a global consulting and technology services company, has been researching and implementing AI techniques to enhance SAFe practices, including predictive analytics for release planning and performance optimization.

6. **SAFe AI Community of Practice:** While not a single company, the SAFe AI Community of Practice is a collaborative group of organizations and practitioners that focuses on exploring and sharing best practices for integrating AI and machine learning into SAFe processes.

Overcoming Challenges

Data privacy and security considerations

Change management and employee adaptation

Skill gap and training requirements

Best Practices for AI Integration in SAFe

START SMALL AND FOCUS ON HIGH-IMPACT AREAS

COLLABORATE ACROSS TEAMS TO IDENTIFY AI OPPORTUNITIES

INVEST IN AI SKILL DEVELOPMENT AND TRAINING

MONITOR AND EVALUATE AI'S IMPACT ON SAFE PRACTICES

Future Trends and Considerations

AI's evolving role in Agile and SAFe methodologies

Integration of AI with DevOps practices

Ethical considerations and responsible AI usage

Conclusion

Recap of key points covered in the presentation

Emphasize the potential of AI to revolutionize SAFe practices

Encourage exploration and experimentation with AI in SAFe implementations

Q&A

- Open for questions and discussions

Let's stay connected

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