



How LLMs are Transforming the Future of Fin-tech

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AGENDA



What are LLMs and its trends



Applications of Gen AI in Fintech



Risks and Mitigations of Gen AI for Fintech



Future Trends

AI vs ML vs DL vs GenAI vs LLMs ??

AI vs ML vs DL vs GenAI vs LLMs



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AI vs ML vs DL vs GenAI vs LLMs

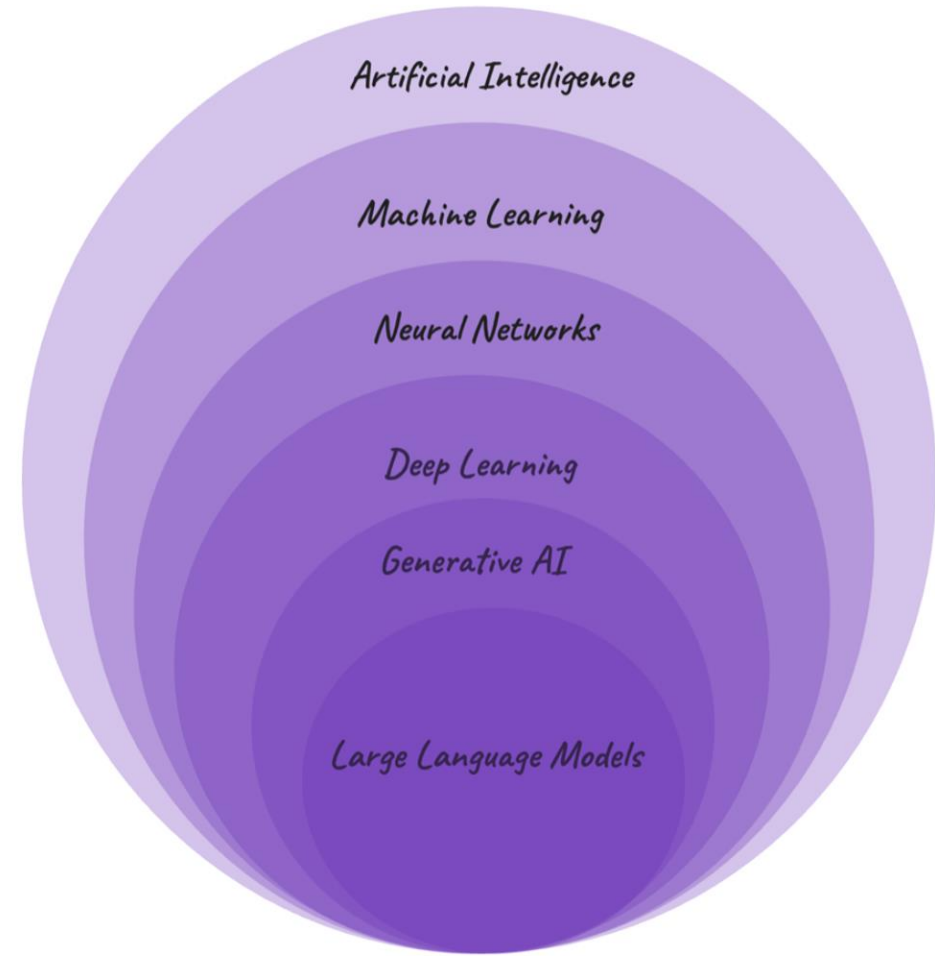
AI (Artificial Intelligence): The broader concept encompassing all technologies that mimic human intelligence, including reasoning, problem-solving, and decision-making.

ML (Machine Learning): A subset of AI focused on training algorithms to learn patterns from data and make predictions or decisions without explicit programming.

DL (Deep Learning): A subset of ML that uses neural networks with multiple layers (hence "deep") to model and solve complex problems, such as image recognition and natural language processing.

GenAI (Generative AI): A category of AI that generates new content, such as images, text, or music, based on the data it has been trained on, using models like GANs and transformers.

LLMs (Large Language Models): A type of GenAI specifically focused on language, trained on vast datasets to understand, generate, and manipulate human language, often with billions of parameters (e.g., GPT-3).



Evolution of LLMs

Model	Provider	Open-Source	Speed	Quality	Params	Fine-Tuneability
GPT-4	Open AI		☆☆☆	★★★★★	1.76T	
GPT-3.5 Turbo	Open AI		★★★	★★★★☆	175B	
GPT-3	Open AI		☆☆☆	★★★★☆	175B	
Claude 3 Opus	Anthropic		★★★	★★★★★	Not specified	
Claude 3 Sonnet	Anthropic		★★★	★★★★☆	Not specified	
Claude 3 Haiku	Anthropic		★★★	★★★☆☆	Not specified	
Command Nightly	Cohere		★★★	★★★★☆	52B	
BERT	Google		★★★★	★★☆☆☆	345M	
T5	Google		★★★	★★☆☆☆	11B	
PaLM	Google		☆☆☆	★★☆☆☆	540B	
Gemini Nano	Google		★★★	★★☆☆☆	1.76T	Coming soon
Gemini Pro	Google		★★★	★★☆☆☆	175B	Coming soon
Gemini Ultra	Google		☆☆☆	★★★★★	175B	Coming soon
LLaMA	Meta AI		★★★	★★☆☆☆	65B	
Llama 2 7B	Meta AI		★★★	★★☆☆☆	7B	
Llama 2 13B	Meta AI		★★★	★★☆☆☆	13B	
Llama 2 70B	Meta AI		☆☆☆	★★★★☆	70B	
Mistral 7B	Mistral AI		★★★	★★☆☆☆	7.3B	
Mixtral 8×7B	Mistral AI		★★★	★★★★☆	46.7B	
Orca	Microsoft		★★★	★★★★☆	13B	?
Falcon 40B	Falcon LLM		★★★	★★☆☆☆	40B	
Falcon 180B	Falcon LLM		★★★	★★★★☆	180B	

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AI Model Trained With 174 Trillion Parameters

January 11, 2023 by [Brian Wang](#)

The BaGuaLu AI system used the Chinese Sunway exaflop supercomputer to train the largest AI model with over 174 trillion parameters. The miraculous capabilities of neural net AI systems like ChatGPT (AI generate novel text and stories) and Dall-E (AI generate novel pictures) and AlphaFold2 (protein folding) comes from the growth of the AI models. Going to 100 trillion parameters means you can do things like take all of the text data of the internet or all of the pictures or all of the videos and learn from those massive datasets.

How our Brain identifies Missing Values



Missing Data In Finance



KYC

We know a customer through the KYC. Often data is incorrect; even if correct, it is not complete information about customer



Transactions

We also have insights about some transactions of the customer. We miss out on many transactions that may not be happening through our platform



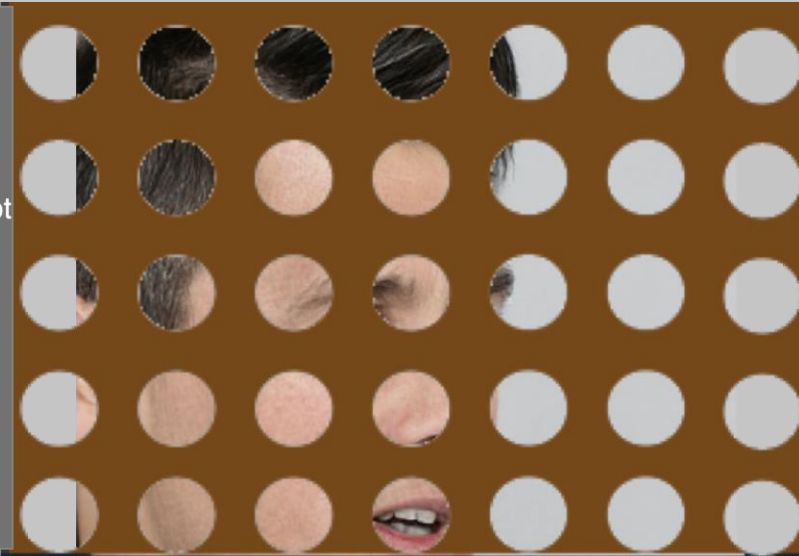
Past Experiences

We have information about how customers have behaved in the past; who is a good customer; who cannot be relied upon



External Information

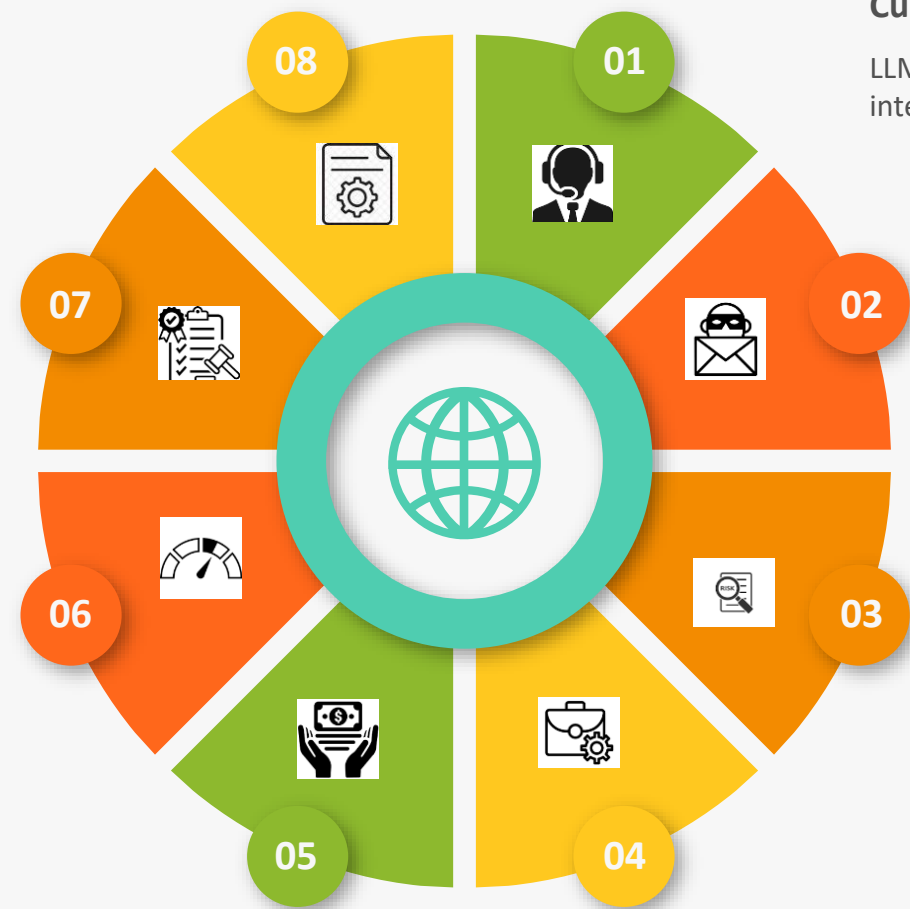
Which jobs and occupations are stable and safe; what is the trend going forward; how is the market and competition doing



While we have many information sources, they are all disparate and incomplete

We need a brain that can work even with incomplete data!

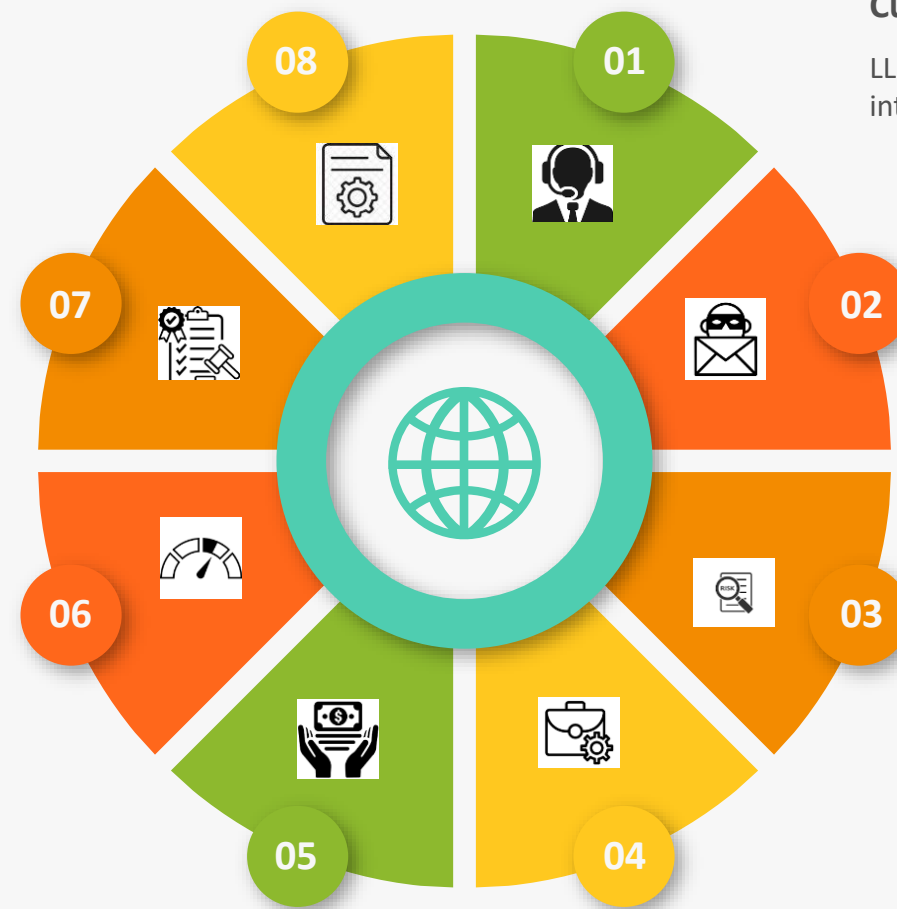
Application of Gen AI in Fintech



Customer Service and Support

LLMs are used to automate customer interactions via chatbots and VAs

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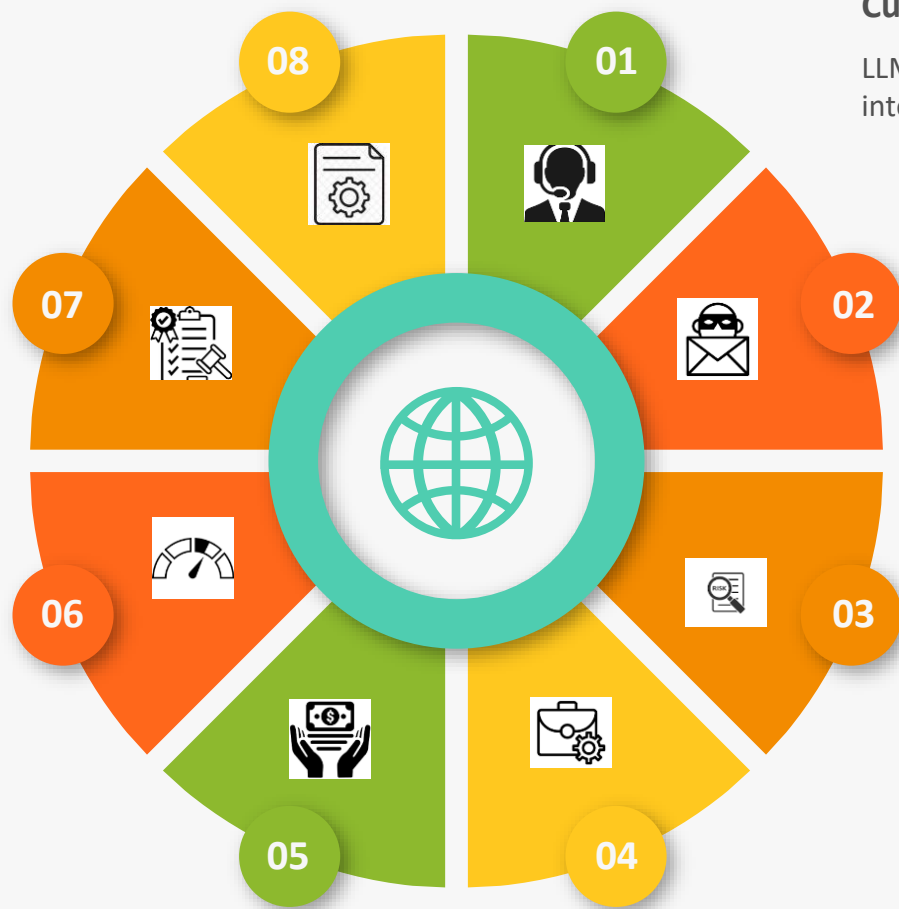
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Generative AI can be used to generate realistic but fake data to help train models for detecting fraudulent transactions to capture new and evolving patterns

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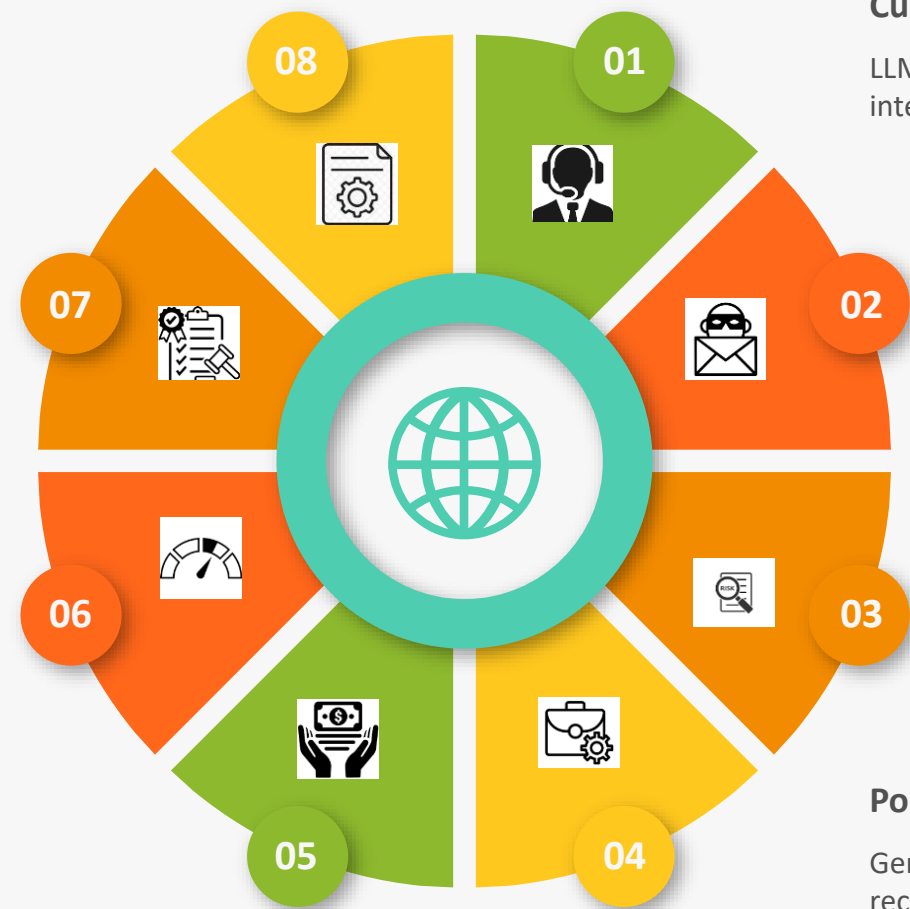
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Generative AI can simulate various financial scenarios and market conditions to help companies and individuals assess risk and make more informed decisions

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Portfolio Management

Generate personalized investment recommendations based on a user's risk tolerance, financial goals, and market trends.

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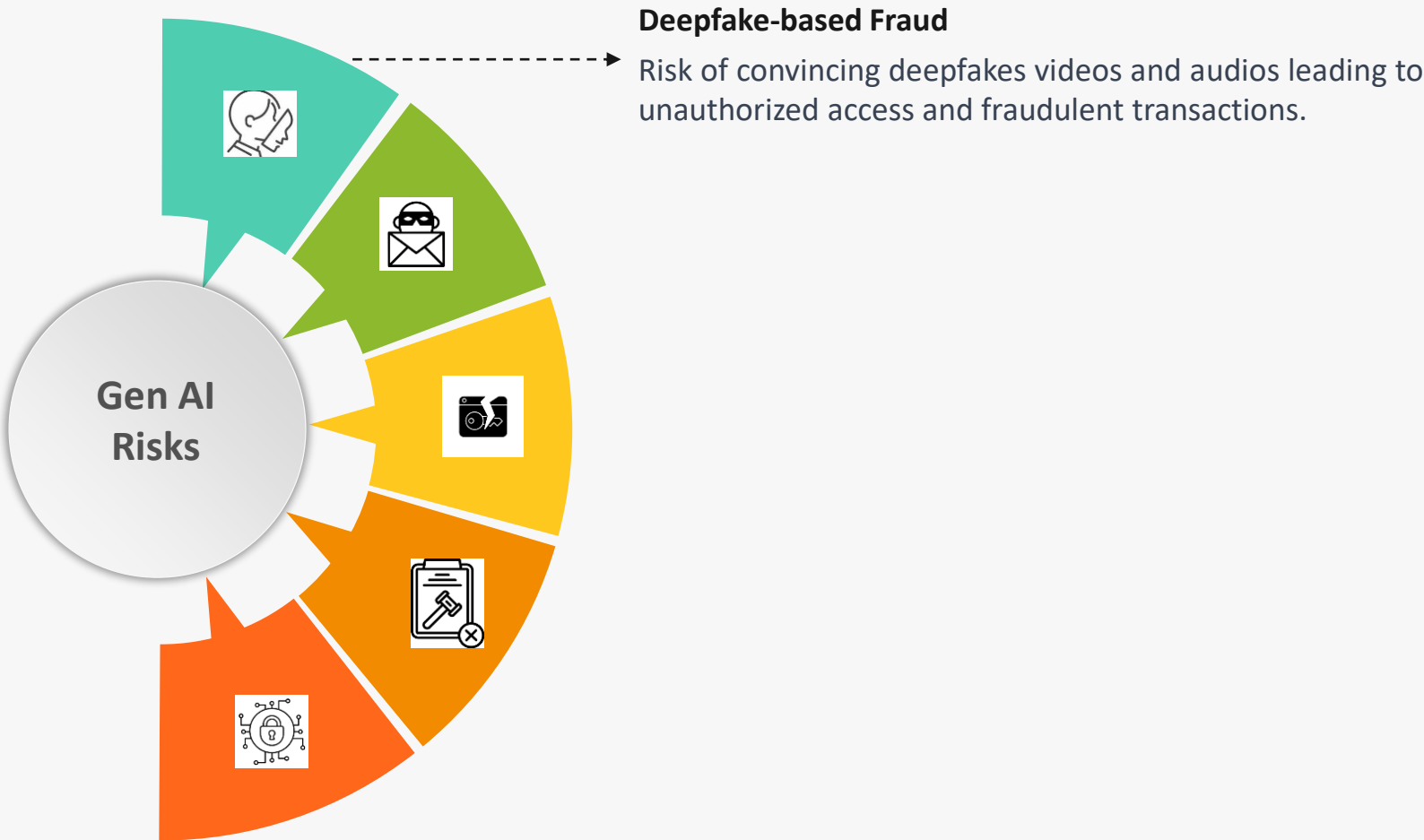


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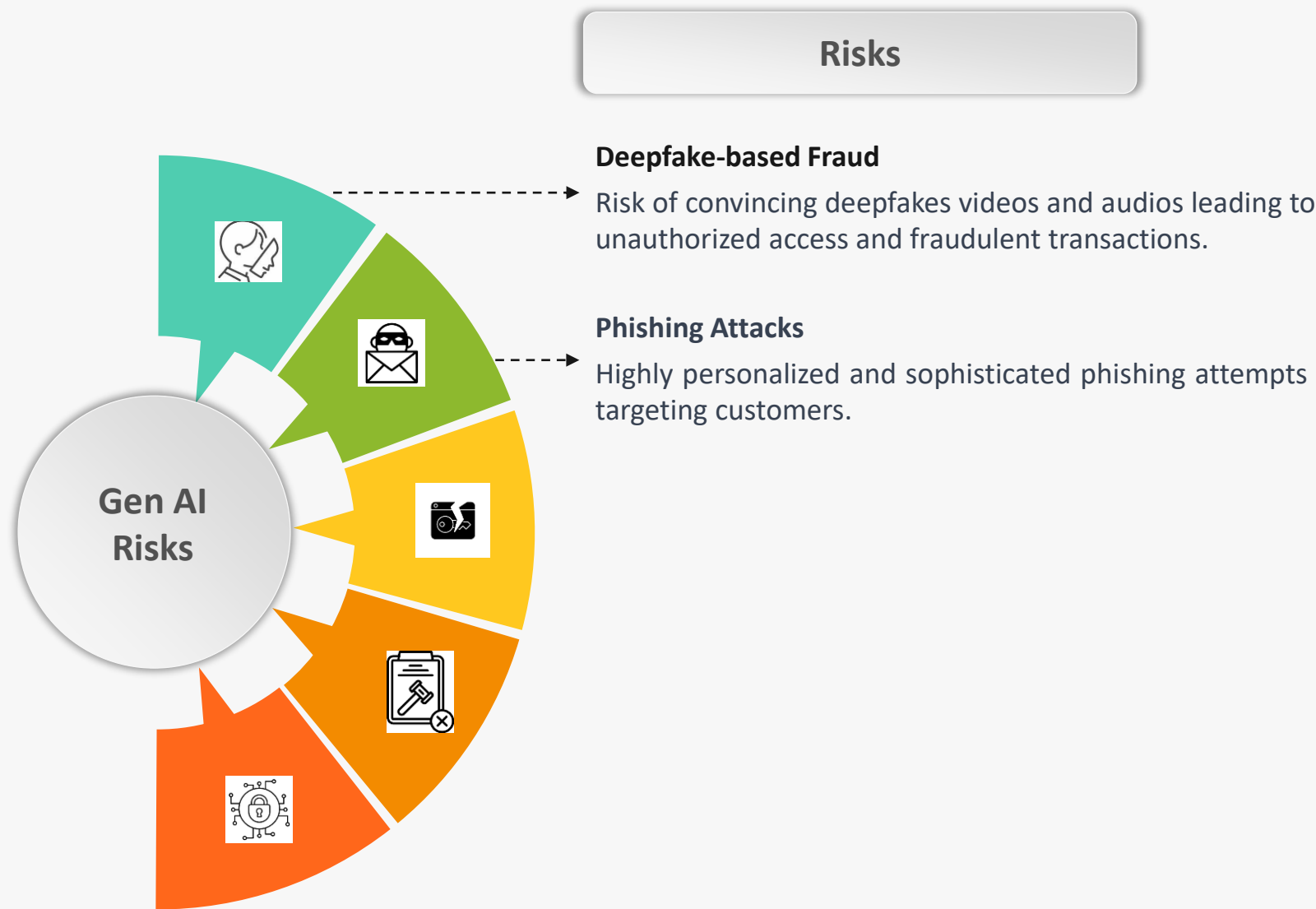


Securing the Future of Banking: Generative AI Risks and Mitigations

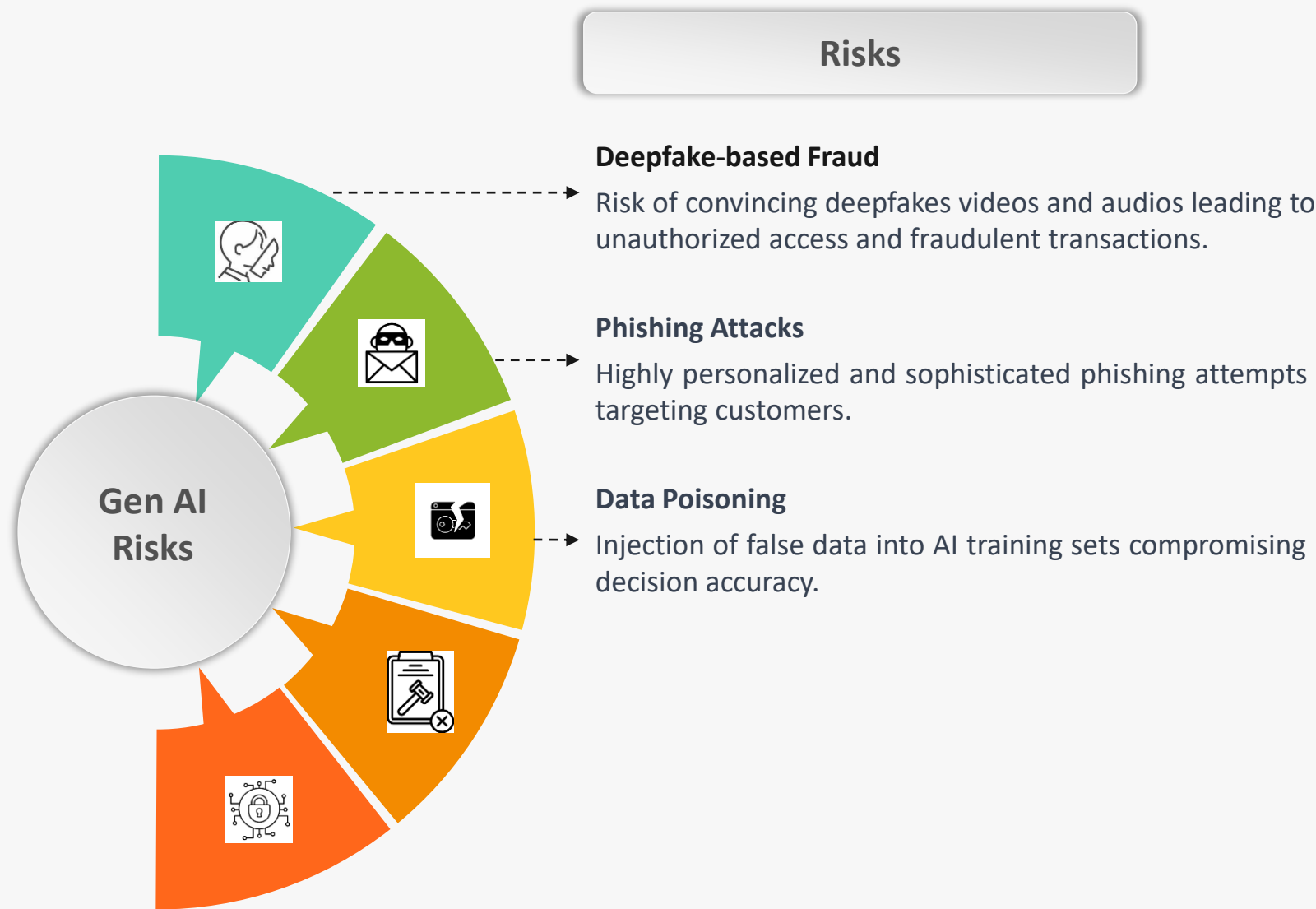
Risks



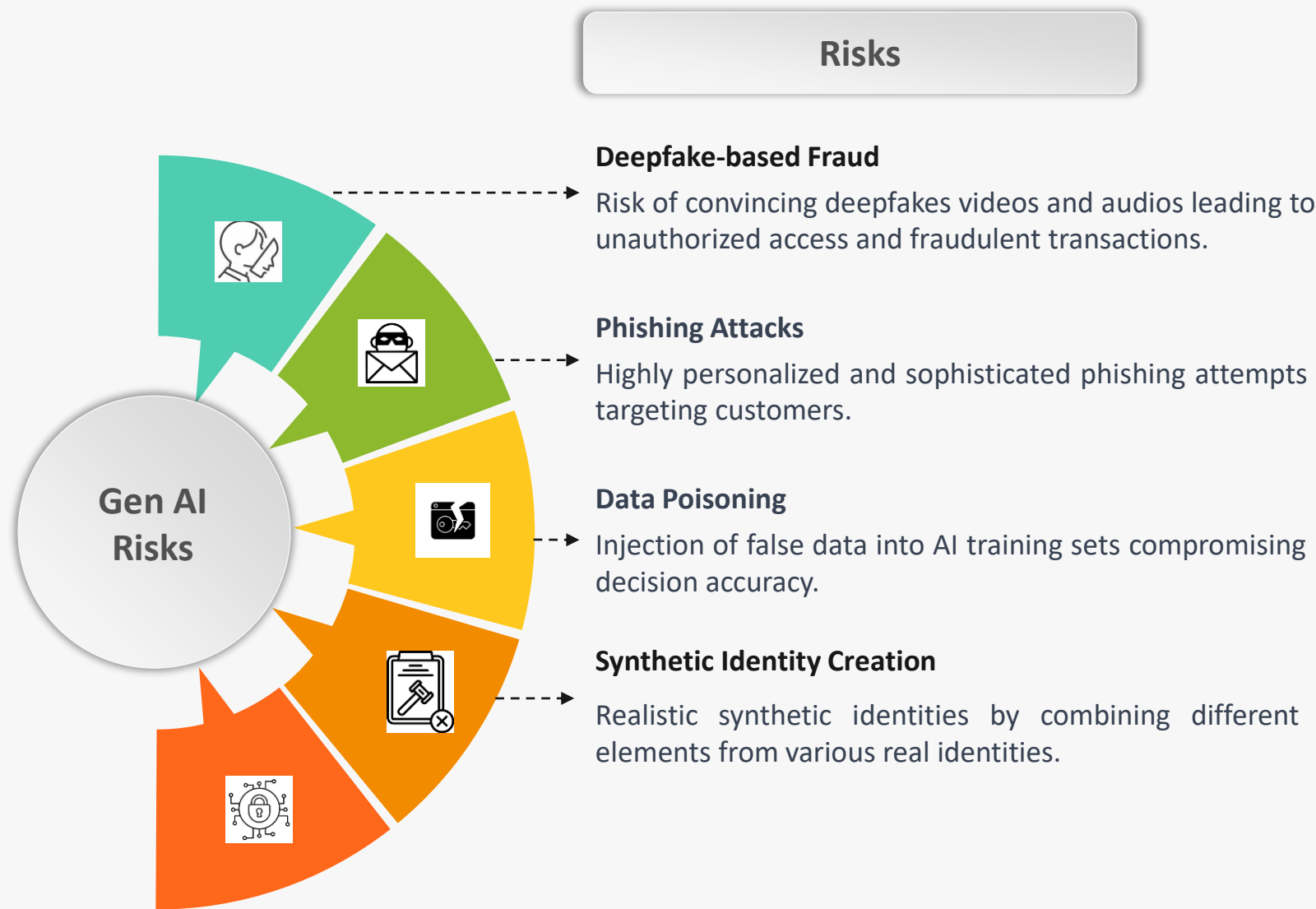
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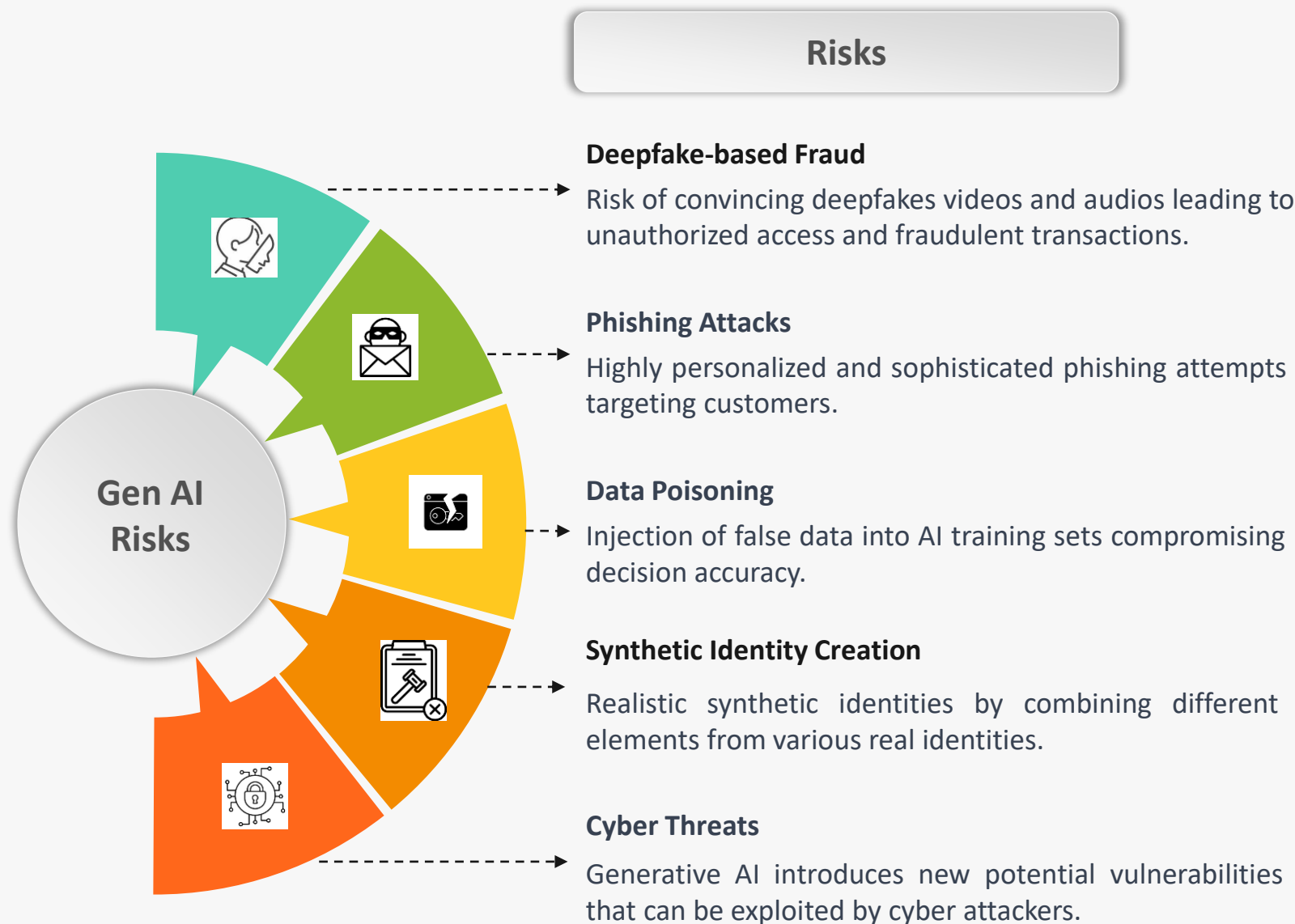
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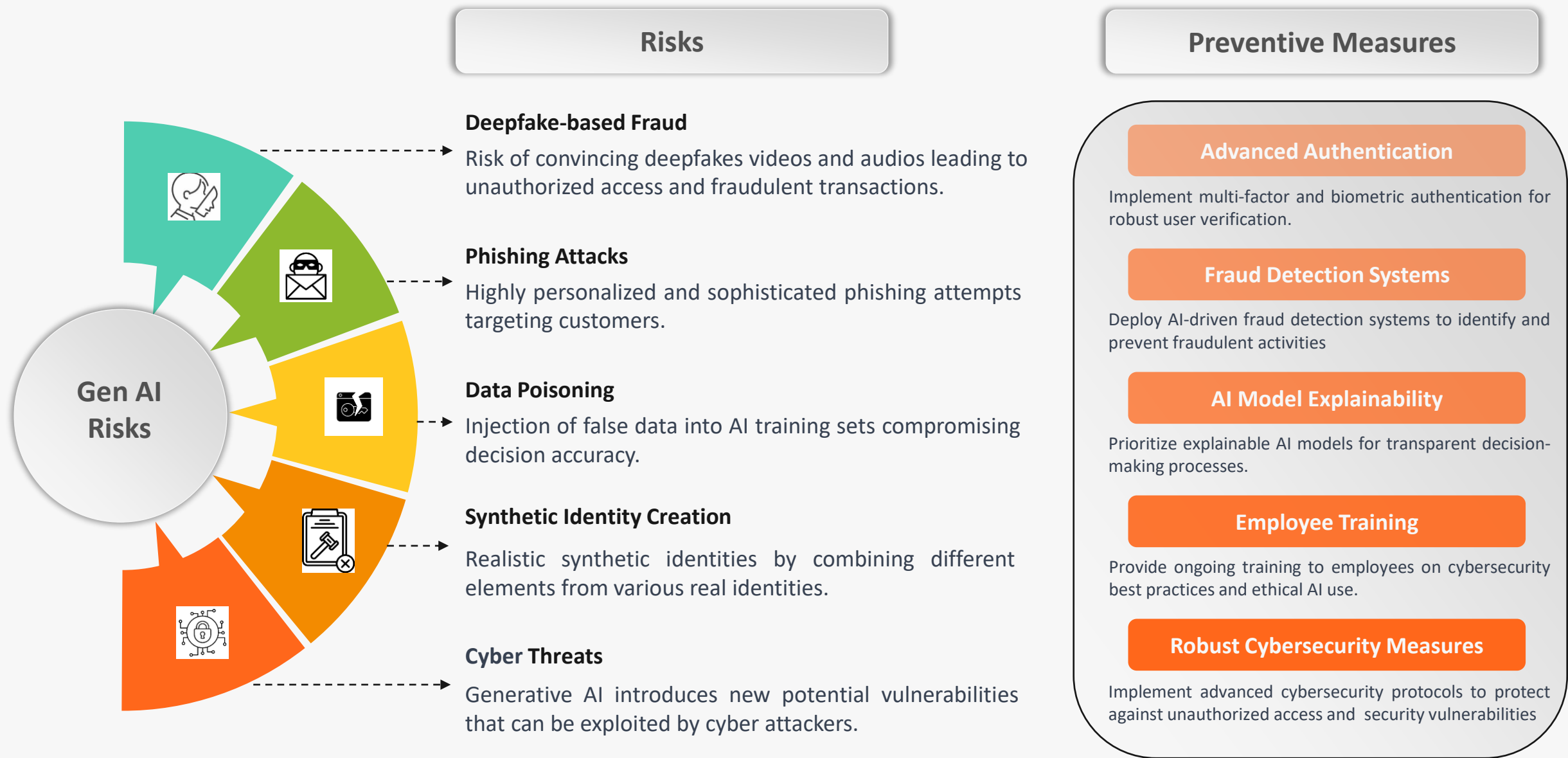
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Future Trends of Gen AI

Smaller, More Efficient Models

make deploying generative AI more feasible for a wider range of applications, including those in edge computing and IoT devices.

Democratization of AI Tools

More accessible and user-friendly AI tools, allowing a wider range of people and organizations to leverage AI's potential.



Multimodal Learning

Future Gen AI move towards a more human-like understanding by processing and generating information across various formats like text, audio, video, and even sensory data.

Explainable and Transparent AI

Future Gen AI might come with built-in explainability features, allowing users to see the reasoning behind its actions.

Thank You

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