AI and the Machine Learning Revolution in Finance: Cogent Labs and the Google Cloud Platform

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IBA

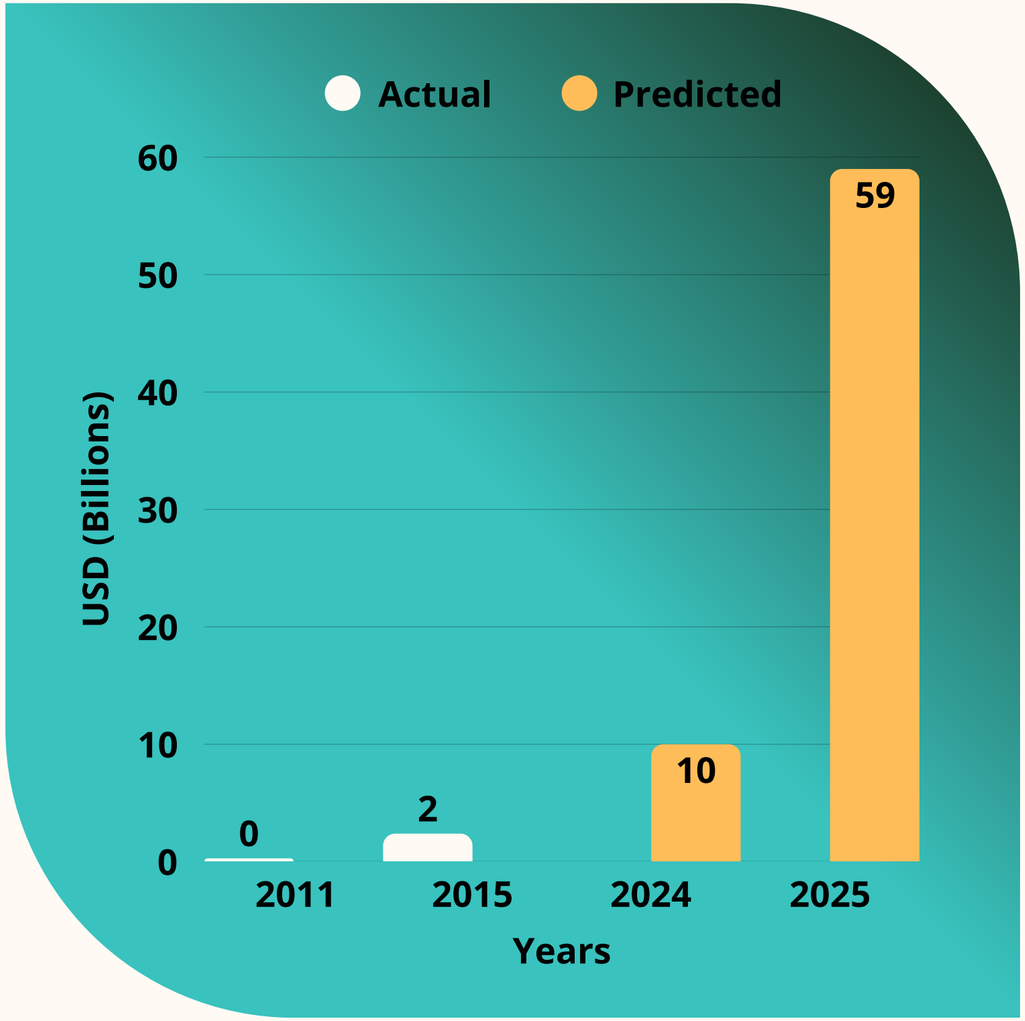
Development of AI

Early	Late 2010s	2017 Onwards
• Initially developed in 1950s • In 1980s neural network became widely used • AI initially underperformed • By late 90s it again gained momentum	• Became a value added component • Used in various sectors • was seen as a means of technology differentiation rather than a market.	• Many large vendors were defining their platform • Source of technology differentiation • Companies who invested in it saw tangible financial results

Industry Trend

AI market in :
2011= $281 million
2015 = $ 2388 million

As for predicted part many sources vary, some estimate it to be at $10 Billion in 2024 while another firm believes it to be at $ 59 Billion in just one more year.



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BACKGROUND

- Founded in Tokyo by Jun Iinuma and Eric Whiteway in Oct 2014
- Started operating in April 2015
- By Aug 2015, company accelerated its growth
- In 2017, it secured significant venture capital investment.
- Investment was $11.5 million USD.
- In middle of 2017, started hiring cloud engineers, important for the success.

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Artificial Intelligence at Cogent Labs

Kaidoku
Natural language platform
Analyzes financial product complaints

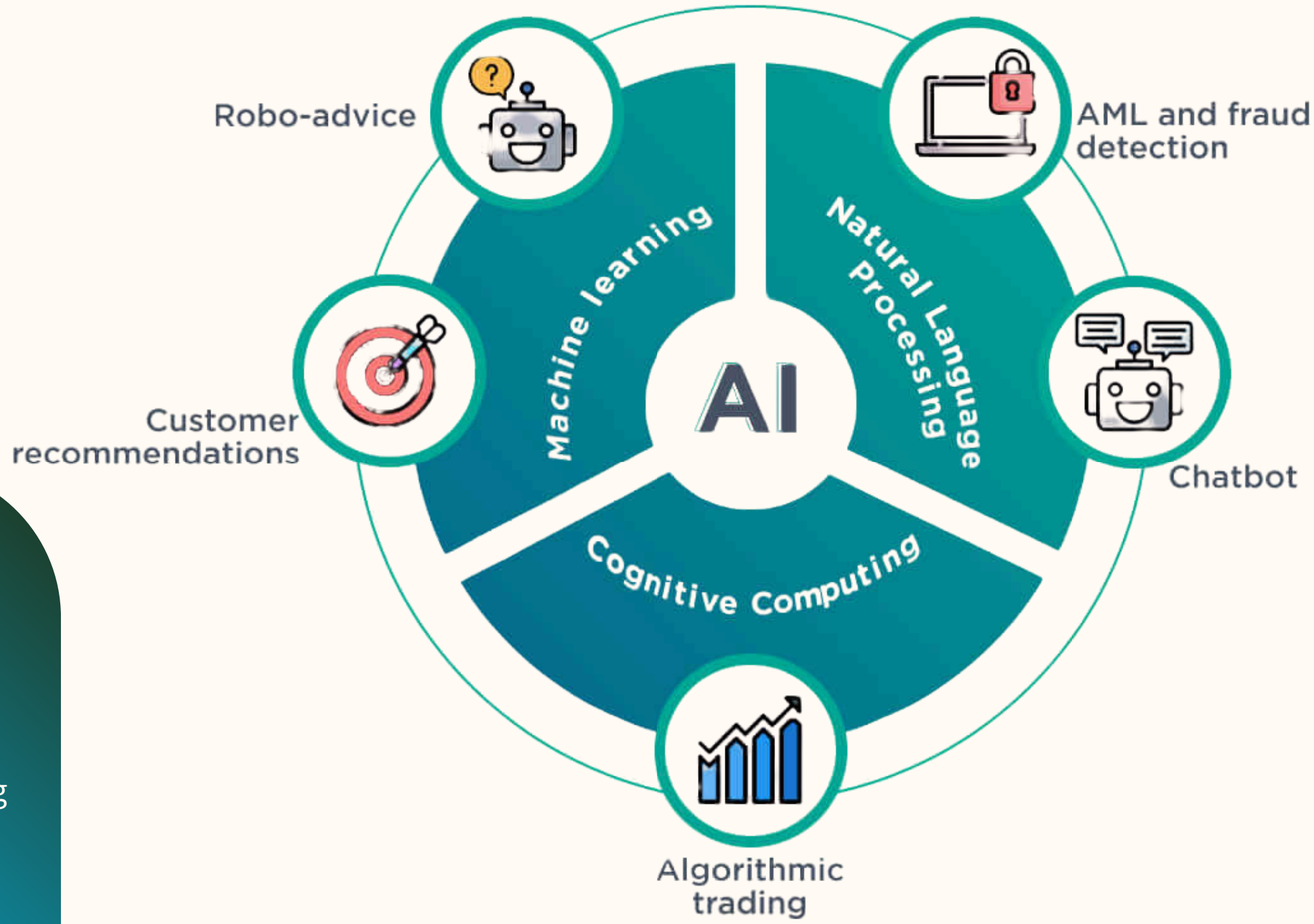
Tegaki
AI-powered handwriting recognition.

Volume Prediction Engine
ML model to predict stock level trading volume (Daiku securities).

Time-Series Platform
Builds customized models for clients quickly.

- Bridge academic AI research with real-world business solutions.
- Strategy: Perception leads to understanding and it leads to reasoning.
- Cost cutting products
- Value-added services
- 3rd most funded startup
- Horizontal Applications

AI in Finance and at cogent labs



Challenges

- Tumultuous past
- Hype cycles followed by periods of disillusionment
- less useful systems in 1980s centered on decision making logic

Acceptance

- Automated analysis of online behavior
- personalized product for each user
- Fraud detection, compliance activities
- Question of AI still profitably trading still remained

Cloud computing landscape

What is Cloud Computing?	Key for AI/ML due to:	Role in AI Explosion
Cloud computing refers to the on-demand delivery of IT resources over the internet with pay-as-you-go pricing.	• Massive data storage • High-speed computing power • Scalability & flexibility	• Cloud computing's growth has powered the AI revolution, especially in finance. • It enables AI firms to run complex models without owning expensive infrastructure.

Major Players in the Cloud Market

Provider	Market Position	Strengths
Amazon Web Services (AWS)	Market Leader	Mature, enterprise-ready, secure. Revenue: $14B+
Microsoft Azure	2nd Largest	Integrates well with MS products. Revenue: ~$3B
Google Cloud Platform (GCP)	Rapid Growth	Innovative AI tools, open-source friendly, strong in ML

Key Trends

- Cloud computing is critical for AI companies, supporting modern AI development.
- Cloud vendors compete on AI/ML tools, developer platforms, and data services.
- Financial firms rely on cloud for cost savings, speed, and AI capabilities.

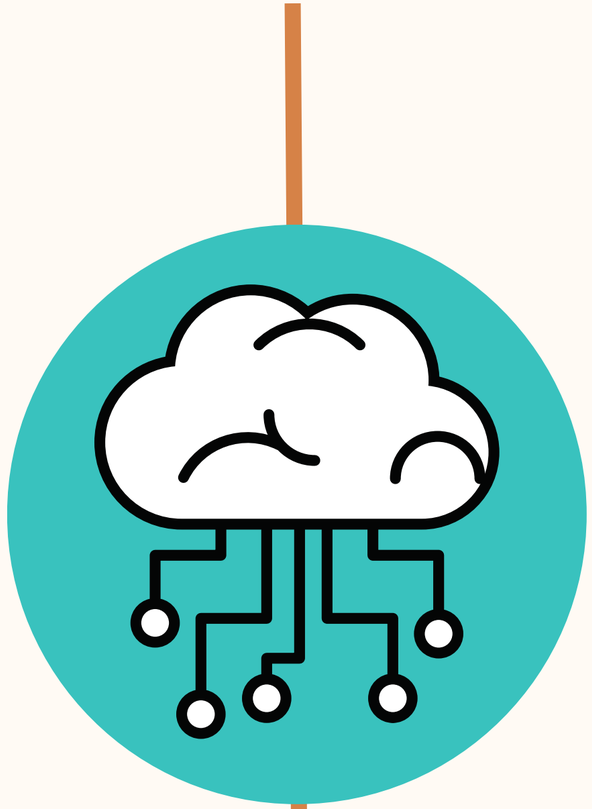
Google Cloud Platform at Cogent Labs

History of GCP	GCP's Role in Finance	Why GCP Matters to Cogent
📌 **2008** – Early tools launched. 📌 **2012–13** – Compute Engine marked full cloud entry. 📌 **2017** – Among Alphabet's fastest-growing units. 📌 **Known for innovation**, open-source contributions, and enterprise-ready architecture.	✓ **Serves 4 client types**: • Traditional banks (e.g., HSBC) • Hedge funds (e.g., Citadel) • Fintechs • Partners like Cogent ✓ **Offers**: • High-level security & regulatory compliance • AI services for fraud detection, compliance automation, and customer insights	🟢 Provides scalable infrastructure Cogent can't build alone. 🟢 Supports fast deployment of AI tools for finance. 🟢 Non-exclusive model ensures flexibility and avoids lock-in. 🟢 Acts as a partner, enabling Cogent to grow in the AI-finance ecosystem.

How Cogent Labs Uses the Cloud?

Google Cloud Platform (GCP)

- **Kubernetes** → Manages AI applications efficiently
- **BigQuery** → Fast data analysis & large-scale storage
- **Lower Costs** → Cheaper computing power



Amazon Web Services (AWS)

- **GPUs** → Faster AI processing for machine learning
- **Databases** → Stores large amounts of financial data
- **Direct Connect** → Reduces network delays & improves speed

Through multi-cloud computing, Cogent Labs gets the best of both platforms: Google Cloud for AI and analytics, and AWS for computing power and storage.

Concerns of AI in Finance

❌ **Overhype Risk –** AI models in finance are often oversold before real-world validation.

❌ **Unpredictable Data –** Financial markets are noisy and unstable, making model training difficult.

❌ **Loss of Judgment –** Blind reliance on algorithms may overlook qualitative insights and context.

❌ **Accountability Gap –** AI-driven decisions raise questions of who is responsible when outcomes go wrong.

Conclusion

01

Build or Partner?

- GCP offers Cogent the scale and tools it can't afford to build alone.
- But long-term reliance risks losing control over infrastructure and innovation.

02

Compete Without Data?

- Cogent lacks proprietary financial datasets, unlike major banks.
- It must win by delivering smarter AI applications using public or client data.

03

Survival Among Giants

- Tech and finance giants dominate both infrastructure and data.
- Cogent must stay agile and leverage partnerships without losing its identity.