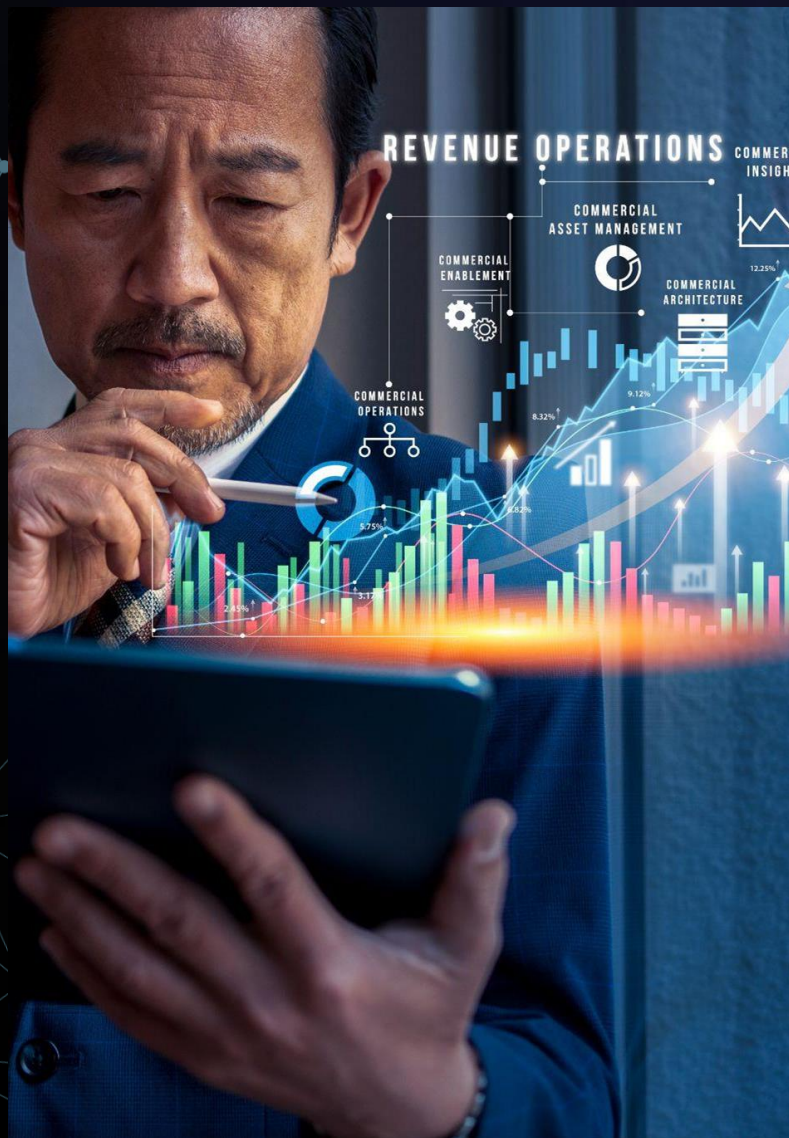




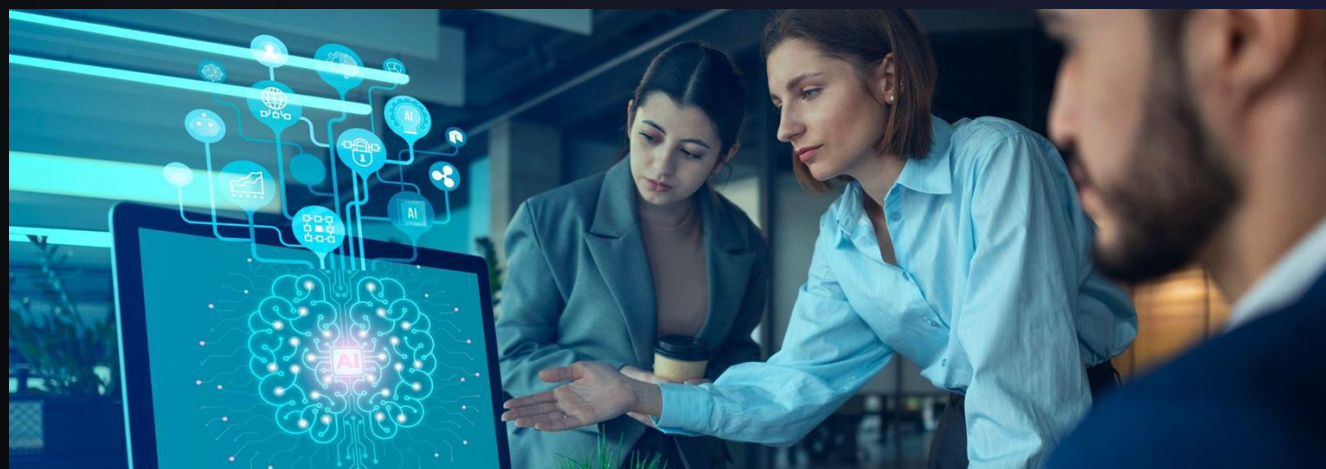
Evolution of **Artificial Intelligence in Finance** Industry

Presentation by Nishitha K



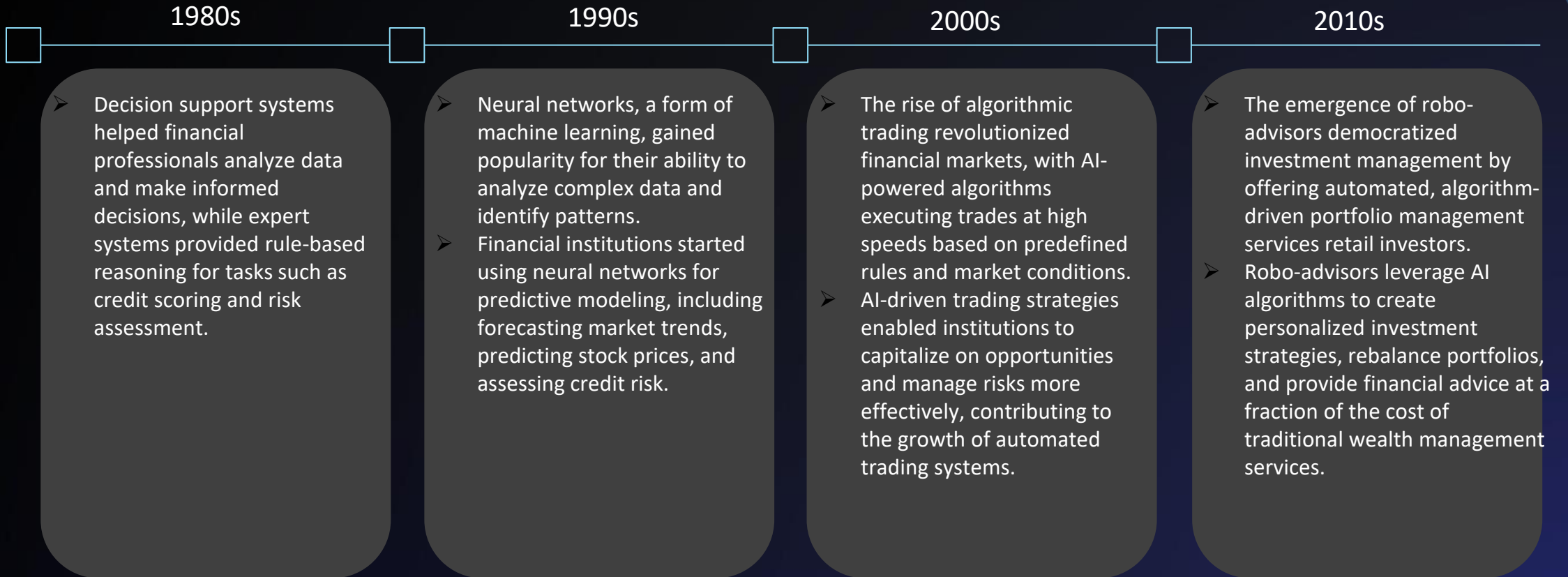
AI Scope in Finance Industry

- Repetitive and refundant processes
- Innumerous transaction cycles
- Abundant Paperwork
- Critical customer interactions
- Large historical Data Volumes
- Fungible products with extensive use of technology





Historical Evolution Timeline





The finance sector has a rich and extensive history with AI dating back to the early 1980s.

- In 1982, Apex created PlanPower, an AI program for tax and financial advice offered to clients with incomes of over \$75,000.
- In 1987, Chase Lincoln First Bank (now part of JP Morgan Chase), launched the Personal Financial Planning System.
- In 1989, FICScore, a credit scoring formula based on a similar algorithm used by banks today, was released.

For decades, banks have been using machine learning techniques to detect credit card fraud. In 2014, the British fund manager, Man Group, began using ML to invest its clients' money. In 2016, Bank of America launched its chatbot Erica, which was considered a milestone in customer interaction. In 2018, various financial institutions announced the development of recommendation systems.

Use Cases in Different Finance Industries

Banking



Banking organizations have leveraged AI technologies for digitization and enhanced customer experience

Use cases:
Fraud detection
Customer service
Process automation
Personalized offerings
Know your customers (KYC)

Corporate Finance



AI algorithms helped organizations to improve operational excellency and manage various risks

Use cases:
Capital budgeting
Portfolio optimization
Due diligence
Compliance

Trading



AI is leveraged by individual and institutional investors to formulate and execute capital market strategies

Use cases:
Algorithmic trading
Stock movement projections
Investment planning
Trade executions
Portfolio rebalancing

Fintech



FinTech companies leverage AI models to improve decision making and customer interaction

Use cases:
Fraud identification
Loan sanctions
Investment management
Personalized sales
Secure transactions

Insurance



Insurance companies leveraged AI capabilities to improve the operational efficiency and reduce risks

Use cases:
Credit scoring
Claims management
Fraud detection
Claims adjudication
Insurance distribution

Real World Examples

JPMorganChase

- JPMorgan Chase developed COIN (Contract Intelligence), an AI-powered platform that automates the review of legal documents, such as loan agreements and derivatives contracts.
- COIN analyzes complex legal documents and extracts key data points, significantly reducing the time and effort required for manual review by lawyers and compliance professionals.



- PayPal employs AI algorithms for fraud detection and prevention, analyzing transaction data in real-time to identify suspicious activities and patterns.
- PayPal's AI-driven fraud detection system flags potentially fraudulent transactions, enabling the company to protect users' accounts and prevent financial losses due to fraudulent activity.

Robinhood

- Robinhood, a commission-free trading platform, utilizes AI-driven algorithms for algorithmic trading and market analysis.
- Robinhood's algorithms analyze market data, identify trading opportunities, and execute trades at high speeds, enabling users to buy and sell stocks, options, and cryptocurrencies with minimal latency.



- HSBC launched Amy, a chatbot powered by AI, to assist customers with inquiries related to account balances, transaction history, and account management.
- Amy uses natural language understanding (NLU) to interpret customer queries and provide relevant responses, enhancing the overall customer experience and reducing the need for human intervention in customer service.

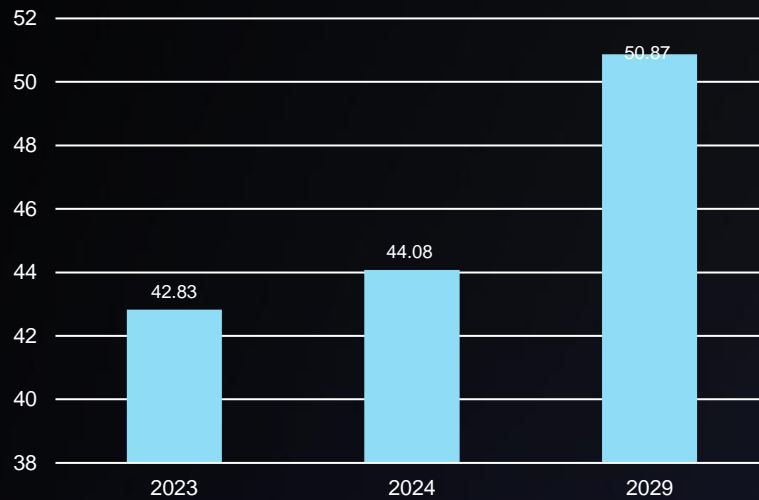
BlackRock

- BlackRock's Aladdin (Asset Liability and Debt and Derivative Investment Network) platform utilizes AI and machine learning algorithms for risk management, portfolio optimization, and investment analysis.
- Aladdin analyzes vast amounts of financial data, including market trends, portfolio performance, and risk factors, to help institutional investors make informed investment decisions and manage risk effectively.



- Ant Financial, the financial affiliate of Alibaba Group, uses AI algorithms to assess the creditworthiness of individuals and small businesses.
- Ant Financial's credit scoring system, known as Zhima Credit (Sesame Credit), analyzes a wide range of data points, including transaction history, social media activity, and online behavior, to generate credit scores and facilitate access to financial services.

Market Size Estimation



Market size of artificial intelligence (AI) in fintech from 2023 to 2024, with a forecast for 2029 (in billion US dollars)

AI has the potential to increase the financial services revenue by 34% and the economy by 26%

All customized financial advice is expected to grow at a CAGR of 12.6% in the next 3 years



Key Statistics

91%

of financial services firms are either assessing AI or already using it in production.

41%

of financial executives believe that chatbots will have the largest impact on the industry by 2025

66%


of financial services firms see AI as a priority for process automation and optimizing back-end operations



Fraud detection and anti-money laundering top AI use case in Finance with 87% adoption among industry leaders



26 trillion minutes of financial services customer service interactions to be managed by 2025

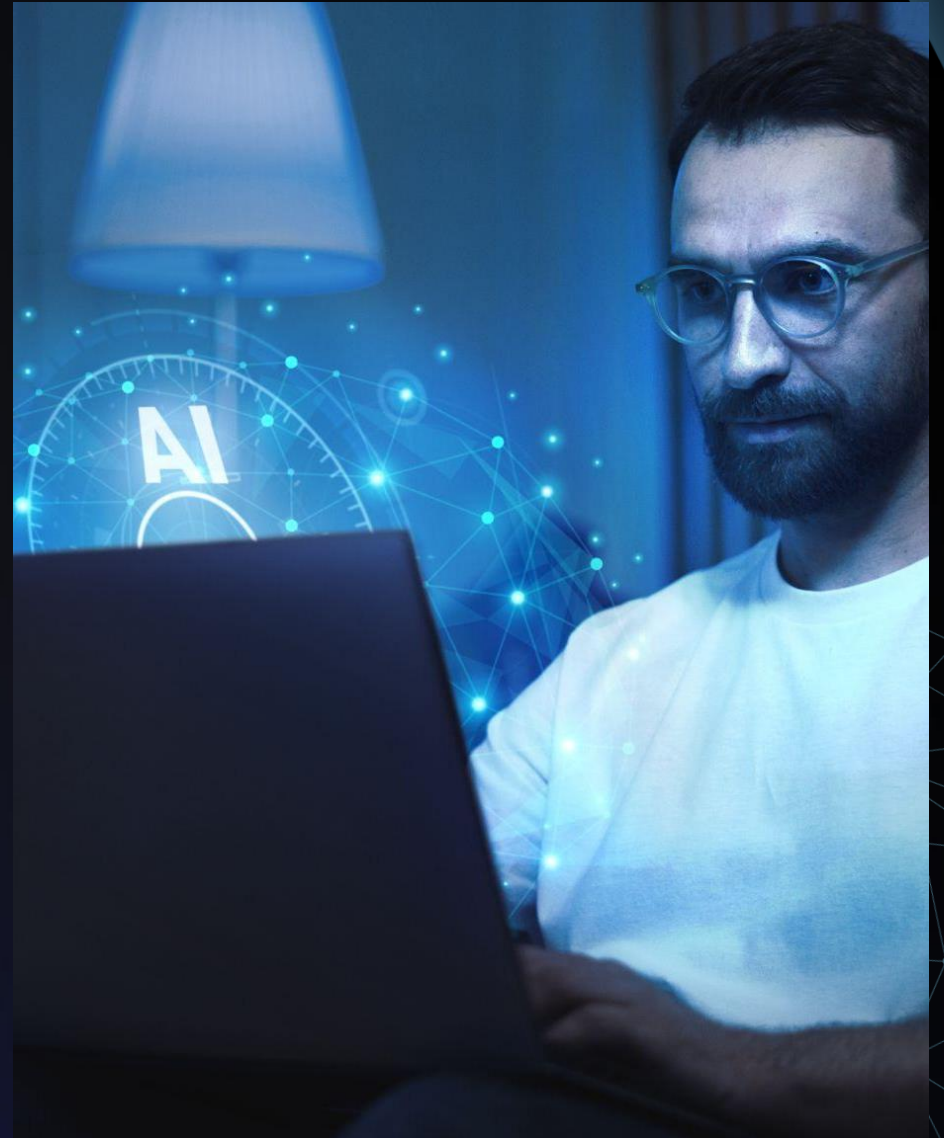




Future Trends

Some futuristic visionary trends that could potentially shape the future of AI in the finance industry:

1. Decentralized Finance (DeFi) Powered by AI
2. Hyper-Personalized Financial Services
3. AI-Powered Quantum Computing in Finance
4. Explainable AI (XAI)
5. AI-Driven Financial Wellness and Education
6. AI-Augmented Decision-Making for Traders and Investors
7. AI-Powered Autonomous Financial Agents





Strategies for Successful Evolution



Collaboration
and
Partnerships



Continuous
Learning and
Adaptation



Responsible AI
Governance



Customer-
Centric
Approach





Thanks



- <https://www.statista.com/statistics/1446269/ai-in-fintech-market-size-forecast/#:~:text=The%20market%20size%20of%20artificial,billion%20U.S.%20dollars%20in%202029>
- <https://gitnux.org/ai-use-in-financial-services-statistics/>