NVIDIA
The World’s Leading AI Supercomputing Company

Gaming
VR
AI & HPC
Self-Driving Cars

GPU COMPUTING
GPU COMPUTING AT THE HEART OF AI

New Advancements Leapfrog Moore’s Law

**Performance Beyond Moore’s Law**

![Graph showing 40 Years of Microprocessor Trend Data with labels for GPU Computing perf (1.5X per year) and Single-threaded perf (1.1X per year).](image)

**Big Bang of Modern AI**

![Diagram illustrating various aspects of AI technology and applications](image)
Mobile computing, inexpensive sensors collecting terabytes of data and the rise of machine learning that can use that data will fundamentally change the way the global economy is organized.
FINANCIAL SERVICES UNDER PRESSURE

AI Early Adopters Gaining Massive Differentiation

Greater Expectations: Customer Service, ROI

70% of Consumers Lack Confidence in Banks

Eroding Market Share

52% Millennials Use Alternative Financial Services in Last Month

Surging Operational Expenses

55% of FSI CEOs are Planning Cost Reductions
AI IMPACTING ALL SEGMENTS

New Financial Services Applications

**BANKING**
- Customer acquisition
- Product cross selling
- Transaction fraud
- Credit risk assessment
- Call center analytics

**CAPITAL MARKETS**
- Client recommendations
- Algorithmic investment
- Large trade execution
- Compliance
- Cybersecurity
- Risk management

**INSURANCE**
- Customer satisfaction
- Policy underwriting
- Annuity offering
- Claims automation
- Fraud prevention
“Future advancements in machine learning will unlock opportunities for us to create breakthrough consumer experiences in ways we can’t even imagine today.”

— Adam Wenchel, VP of AI, Capital One
“The United States alone faces a shortage of 140,000 to 190,000 people with analytical expertise and 1.5 million managers and analysts”

— McKinsey Prediction for 2018
TRAINING DATA

DATASET
Select or Import a dataset...
“The democratization of information has made it much harder for active management,” Mr. Fink said in an interview...

“We have to change the ecosystem - that means relying more on big data, artificial intelligence, factors and models within quant and traditional investment strategies.”

— Laurence Fink, Blackrock CEO, New York Times, March 2017
INVESTMENT HYPOTHESIS TESTING
AI ROBOTS FOR TRADING
Reinforcement Learning at JPMC Outsmarts Human Experts

“JPMorgan will soon be using a first-of-its-kind robot to execute trades...

“...after a European trial of the bank’s new AI program showed it was much more efficient than traditional methods of buying and selling.”

— Financial Times, July 2017
MANAGING RISK ACROSS FIRM

Database Queries From Hours to Seconds
INSURANCE CLAIMS FASTER AT LOWER COST
AI Automation Drives OPEX Down, Customer Sat Up

ARYA.ai Achievements

40% Processing Cost Reduction

>70% STP (Straight Through Process) within first Quarter

Process Claim in 0.04 sec
AI AUTOMATED CLAIMS PROCESSING

Ingesting Massive Data Sets

Data Extraction from Dynamic Unstructured Data
Segment, Extract, Populate

Total Layers: 503

92% Accuracy
KICK START AI COMPUTING
From Edge to Cloud, Across Every Framework

APPLICATIONS

INDUSTRY FRAMEWORKS & TOOLS

DEEP LEARNING FRAMEWORKS

DEEP LEARNING SDK

NVIDIA SDK

ECOSYSTEM TOOLS

COMPUTEWORKS

NVIDIA GPU & SYSTEMS

APPLICATIONS

INDUSTRY FRAMEWORKS & TOOLS

DEEP LEARNING FRAMEWORKS

DEEP LEARNING SDK

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DEEP LEARNING FRAMEWORKS

DEEP LEARNING SDK

NVIDIA SDK

ECOSYSTEM TOOLS

COMPUTEWORKS

NVIDIA GPU & SYSTEMS
AI REVOLUTIONIZING FINANCIAL SERVICES

CUSTOMER LOYALTY
- Advanced Customer Engagement
- Greater Account Protection

REAL TIME RISK MANAGEMENT
- Market Information Extraction
- Portfolio Leverage | Risk Optimization

PORTFOLIO MANAGEMENT
- Predictive Intelligence
- Deeper Insight | Bigger Returns
For questions: asteinbach@nvidia.com