FinTech@CSAIL

Summary

FinTech@CSAIL is a strategic Initiative that brings 14 member companies together with 4 CSAIL faculty directors and a dozen researchers to advance impactful research and explore new technological solutions. As part of the Initiative, companies have a significant opportunity to be directly involved in developing innovative technologies that will transform the FinTech space, opening up new pathways in banking and global financial services.

How It Works

Each member company of the Initiative has a seat on the executive board along with faculty directors.

Among the many benefits of the Initiative's structure is the ability to be involved in multiple projects simultaneously, for a similar cost of sponsoring a single project outside of the Initiative.

Current Members

- **Citi Group**
- **Canadian Imperial Bank of Commerce**
- **London Stock Exchange Group**
- **Ryan LLC**
- **Itaú Unibanco**
- **Ant Financial**
- **State Street**
- **Fidelity Investments**
- **NASDAQ**
- **Ripple**
- **Bank of International Settlements**
- **Bank Negara Malaysia**
- **ConsenSYS**
- **Bank of New York Mellon**

Contact Us

Are you interested in learning how you can connect with CSAIL and become a member of the Initiative?

Contact Philip Arsenault to learn how your organization can gain access to CSAIL research through CSAIL Alliances.

Philip Arsenault

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FinTech@CSAIL
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MIT CSAIL
ALLIANCES

Key Research Areas

Financial institutions have to adapt to a whole new landscape of technology in order to remain competitive, automate processes, analyze and protect data, and improve customer experience. Currently, FinTech@CSAIL member companies are interested in key areas that impact industry:

- Artificial intelligence to detect fraudulent transactions
- Machine learning to improve fairness and decision-making in datasets
- Natural language processing to create more robust chatbots and cleaner financial data
- Cybersecurity to measure and assess risk, detect attacks, and learn from data to more accurately price cybersecurity insurance

Projects in Progress

FinTech@CSAIL has funded 16 projects totaling over $2M in funding that explore emerging tools and technologies. Topics include data sharing, cybersecurity insurance, detecting bias in machine learning and AI, distributed ledger technology, smart contract technology, and natural language processing for chatbots and other services.
Click on the project titles to view the papers.

- Reliably Meaningful Saliency Maps via Semi-Supervised Learning
- Application-Level Security: Improved Internet Security by Exploiting Trust Management, User Attributes and Identity
- Deep Learning Models for Conversational Agents
- Network Architecture and Routing Protocols for Payment Channel Networks
- Distributed Algorithms for Analyzing Structure of Big Data
- A Domain Specific Language for Real-Time, Low-Latency Financial Computations
- Two Lenses on Regulatory Environment Technology: Data-Free and Data-Driven
- Machine Learning to Detect Vulnerabilities in Smart Contracts
- A Framework for Generating Verifiable Smart Contracts for Financial Contracts
- How Do My Cyber Defenses Compare?
- Adversarial Robustness: Towards Deep Learning for Finance
- Large-Scale Analysis of Cyber Risk Defenses and Losses Across Firms and Industries using the SCRAM (Secure Cyber Risk Aggregation & Measurement) Platform
- Document Processing with AI & OCR and Neural Network Application in Financial Realm
- Conversational Financial Agents
- MLOptimal: A Robust System for Strategic Decision-Making in Finance