



# ICAIF 2020

ACM International Conference on AI in Finance  
October 14-16, 2020  
<https://ai-finance.org>

schedule version 2.0, as of October 13  
times are US Eastern Time

## Workshop: AI in Africa for Sustainable Economic Development

Organizer: Dr. Samuel Assefa (J.P. Morgan AI Research)

Start	End	Wednesday, October 14, 2020	Presenter/Host	Authors
8:00	8:45	Welcome (15mins) & Keynote (30mins)	Prof. Tucker Balch, Dr. Charity Wayua, Samuel Assefa	Tucker Balch (J.P. Morgan AI Research), Charity Wayua (IBM Research Africa)
8:45	9:45	<b>AI in Africa - Invited Speakers (60 min)</b>	<b>Presenter/Host</b>	<b>Authors</b>
		AI in Africa - Invited Speakers (60 min)	Ketika Tyagi (Host), Samuel Assefa (Host)	
		Invited Speakers (15 mins)	Mr. Karim Beguir	Karim Beguir (InstaDeep)
		Invited Speakers (15 mins)	Prof. Howard Chitimira	Howard Chitimira (North West University South Africa)
		Invited Speakers (15 mins)	Prof. Kumar Bhagavatula	Kumar Bhagavatula (CMU-Africa)
		Invited Speakers (15 mins)	Mr. Arsalan Mahtafar	Arsalan Mahtafar (JP Morgan DFI)
9:45	10:00	Coffee Break (15 min)		
10:00	10:30	AI in Africa -Keynote (30 min)	Prof. Manuela Veloso	Manuela Veloso (JP Morgan)
10:30	11:20	<b>AI in Africa Presentations (50 min)</b>	<b>Presenter/Host</b>	<b>Authors</b>
		AI in Africa Presentations (50 min)	Girmaw Abebe (Host)	
		Spotlight Invited Talk (20 mins)	Prof. Patrick McSharry	Patrick McSharry (CMU-Africa)
		Selected Presentation (5 mins)	Eliyas Girma	Selam Damtew, Eliyas Girma Mohammed, Surafel Lemma Abebe
		Selected Presentation (5 mins)	Dassalew Yohannes, Yergal Assabie	Dessalew Yohannes ,Yergal Assabie
		Selected Presentation (5 mins)	Jermia Bayisa	Jermia Bayisa, Boaz Berhanu
		Selected Presentation (5 mins)	Collins Korir	Collins Korir, Lawrence Nderu
		Selected Presentation (5 mins)	Henry Mutisya Ngie	Henry Mutisya Ngie Lawrence Nderu Dorcas Gicuku Mwigeri
		Selected Presentation (5 mins)	Neeti Pokhriyal	Neeti Pokhriyal, Soroush Vosoughi
11:20	11:30	<b>Coffee Break (10 min)</b>	<b>Presenter/Host</b>	<b>Authors</b>
11:30	12:30	AI in Africa Panel Discussion (45 min) & Closing Remarks (15mins)	Samuel Assefa (Moderator), Charity Wayua, Gamaleldin Elsayed; Oluwatobi Olabiyi, Patrick McSharry, Charese Smiley	
12:30	13:30	<b>Lunch Break (60 min)</b>	<b>Presenter/Host</b>	<b>Authors</b>
		Park Ave Chat	Mahmoud Mahfouz	
		Madison Ave Chat	Selim Amrouni	
		Bank St Chat	Srijan Sood	

## Workshop: Women in AI and Finance

Organizer: Dr. Sumitra Ganesh (J.P. Morgan AI Research)

Start	End	Wednesday, October 14, 2020	Presenter/Host	Authors
13:30	14:30	Opening Remarks (15 min) + Keynote (45 min)	Sumitra Ganesh (Facilitator) Manuela Veloso, Emma Brunskill (Keynote Speaker)	
14:30	15:15	Panel Discussion (45 min)	Sameena Shah (Moderator), Jessica Stauth, Claudia Perlich, Ravit Mandell, Maria Potoroczyn, Frances Ning (faciliator)	
15:15	15:30	<b>Coffee Break (15 min)</b>	<b>Presenter/Host</b>	<b>Authors</b>
		Park Ave Chat	Suwen Gu	
		Madison Ave Chat	Simerjot Kaur	
		Bank St Chat	Charese Smiley	
15:30	16:00	<b>Breakout Sessions A (30 min)</b>	<b>Presenter/Host</b>	<b>Authors</b>
		Park Ave Breakout A: Career Paths in AI/ML + Finance	Elaine Wah, Megan Shearer, Veronica Zhai	
		Madison Breakout A: Thematic investing powered by NLP	Jennifer Rabowsky, Katherine Magee	
		Bank St Breakout A: Secure Multi-party Computation and Privacy-preserving ML	Antigoni Polychroniadou	
16:00	16:30	<b>Breakout Sessions B (30 min)</b>	<b>Presenter/Host</b>	<b>Authors</b>
		Park Ave Breakout B: Use of ML in Quantitative Trading Strategies	Rene Zhang, Lisa Huang	
		Madison Breakout B: Detecting Mis-information in Financial Text	Armineh Nourbakhsh, Charese Smiley	
		Bank St Breakout B: Generating Realistic Synthetic Data in Finance	Zhen Zheng, Parisa Hassanzadeh	
16:30	17:00	AI in Finance Trivia Contest	Ketika Tyagi	

## ICAIF Main Conference Day 1

Start	End	Thursday, October 15, 2020	Presenter/Host	Authors
8:15	8:45	<b>Coffee Break (30 min) Thursday</b>	<b>Presenter/Host</b>	<b>Authors</b>
		Park Ave Chat	Joshua Lockhart	
		Madison Ave Chat	Natraj Raman	
		Bank St Chat	Daniel Borrajo	
8:45	9:00	Program Chair Welcome: Tucker Balch (15 min)	Tucker Balch	
9:00	10:00	<b>Park Avenue Session 1: Simulated Markets (Thursday)</b>	<b>Presenter/Host</b>	<b>Authors</b>

	Analysis of the impact of maker-taker fees on the stock market using agent-based simulation	Isao Yagi	Isao Yagi (Kanagawa Institute of Technology)*; Mahiro Hoshino (Kanagawa Institute of Technology); 孝信 水田 (スパークス・アセット・マネジメント株式会社)
	Get Real: Realism Metrics for Robust Limit Order Book Market Simulations	Svitlana Vyetenko	Svitlana Vyetenko (J. P. Morgan Chase)*; David Byrd (Ga Tech); Danial Dervovic (JPMorgan Chase & Co.); Tucker Balch (JP Morgan); Mahmoud Mahfouz (J.P. Morgan); Nicholas Petosa (Georgia Institute of Technology)
	Simulating and Classifying Behavior in Adversarial Environments Based on Action-State Traces: An Application to Money Laundering	Daniel Borrajo	Daniel Borrajo (JPMC AI Research and Universidad Carlos III de Madrid)*; Manuela Veloso (JP Morgan); Sameena Shah (JPMorgan Chase & Co.)
9:00	<b>Madison Avenue Session 1: Forecasting 1 (Thursday)</b>	<b>Presenter/Host</b>	<b>Authors</b>
10:00	Dynamic Prediction Length for Time Series with Sequence to Sequence Network	Diego Klabjan	Diego Klabjan (Northwestern University)*; Mark Harmon (Northwestern)
	A Multi-Faceted Approach to Large Scale Financial Forecasting	Urvitkumar Patel	Urvitkumar Patel (S&P Global)*; Antony Papadimitriou (S&P Global); Lisa Kim (S&P Global); Azadeh Nematzadeh (S&P Global); Grace Bang (S&P Global); Xiaomo Liu (S&P Global)
	Market Volatility Prediction Based on Long- and Short-Term Memory Retrieval Architecture	Jie Yuan	Jie Yuan (ISU)*; Zhu (Drew) Zhang (ISU)
	Fast Direct Calibration of the G2++ Interest Rate Derivatives Pricing Model	Luca Sabbioni	Luca Sabbioni (Politecnico di Milano)*; Andrea Prampolini (Banca IMI); Marcello Restelli (Politecnico di Milano)
9:00	<b>Bank Street Session 1: AI and Investing (Thursday)</b>	<b>Presenter/Host</b>	<b>Authors</b>
10:00	Dealing with Transaction Costs in Portfolio Optimization: Online Gradient Descent with Momentum	Edoardo Vittori	Edoardo Vittori (Politecnico di Milano)*; Martino Bernasconi de Luca (Politecnico di Milano); Francesco Trovò (Politecnico di Milano); Marcello Restelli (Politecnico di Milano)
	Index Tracking with Differentiable Asset Selection	Yongxin Yang	Yu Zheng (Southwestern University of Finance and Economics); Yunpeng Li (University of Surrey); Qiuhua Xu (Southwestern University of Finance and Economics); Timothy Hospedales (Edinburgh University); Yongxin Yang (University of Surrey)*
	Machine Learning Fund Categorizations	Dhagash Mehta	Dhagash Mehta (The Vanguard Group)*; Dhruv Desai (The Vanguard Group); Jithin Pradeep (The Vanguard Group)
	Algorithms in Future Capital Markets: A Survey on AI, ML and Associated Algorithms in Capital Markets	Adriano S Koshiyama	Adriano S Koshiyama (University College London)*; Nick Firoozye (University College London); Philip Treleven (University College London)
10:00	<b>Coffee Break and Sponsor Booths (30 min) (Thursday)</b>	<b>Presenter/Host</b>	<b>Authors</b>
	Park Ave Chat	Svitlana Vyetenko	
	Madison Ave Chat	Joshua Lockhart	
	Bank St Chat	Suwen Gu	
	Sponsor Booths Open	Lidia Mangu	
10:30	Keynote 1: Jeannette Wing, Columbia University (30 min)	Jeannette Wing	
11:00	<b>Park Avenue Session 2: Cryptography in Finance (Thursday)</b>	<b>Presenter/Host</b>	<b>Authors</b>
	SecretMatch: Inventory Matching from Fully Homomorphic Encryption	Ben Diamond	Ben Diamond (JPMorgan Chase)*; Antigoni Polychroniadou (JP Morgan Chase); Tucker Balch (JP Morgan)
	Differentially Private Secure Multi-Party Computation for Federated Learning in Financial Applications	David Byrd	David Byrd (Ga Tech)*; Antigoni Polychroniadou (J.P. Morgan AI Research)
	CryptoCredit: Securely Training Fair Models	Leo de Castro	Leo de Castro (MIT)*; Jiahao Chen (JP Morgan Chase); Antigoni Polychroniadou (JP Morgan Chase)
11:00	<b>Madison Avenue Session 2: Forecasting 2 (Thursday)</b>	<b>Presenter/Host</b>	<b>Authors</b>
	Sig-SDEs model for quantitative finance	Cristopher Salvi	Imanol Perez Arribas (University of Oxford)*; Cristopher Salvi (University of Oxford); Lukasz Szpruch (University of Edinburgh)
	Improved Predictive Deep Temporal Neural Networks with Trend Filtering	Jaesik Choi	Youngjin Park (UNIST); Deokjun Eom (KAIST); Jaesik Choi (KAIST)*
	Conditional Mutual Information-Based Contrastive Loss for Financial Time Series Forecasting	Hanwei Wu	Hanwei Wu (KTH Royal Institute of Technology)*; Ather Gattami (RISE SICS); Markus Flierl (KTH Royal Institute of Technology)
	Connecting The Dots: Forecasting and Explaining Short-Term Market Volatility	Jie Yuan	Jie Yuan (ISU)*; Zhu (Drew) Zhang (ISU)
11:00	<b>Bank Street Session 2: Graphical Models in Finance (Thursday)</b>	<b>Presenter/Host</b>	<b>Authors</b>
	Subgraph Anomaly Detection in Financial Transaction Networks	Yulong Pei	Yulong Pei (TU Eindhoven)*; Fang Lyu (TU Eindhoven); Werner van Ipenburg (Cooperatieve Rabobank U.A.); Mykola Pecherizkiy (TU Eindhoven)
	Graphical Models for Financial Time Series and Portfolio Selection	Ni Zhan	Ni Zhan (Carnegie Mellon University)*; Yijia Sun (Carnegie Mellon University); Aman Jakhar (Carnegie Mellon University); He Liu (Carnegie Mellon University)
	Recommending Missing and Suspicious Links in Multiplex Financial Networks	Robert E Tillman	Robert E Tillman (JPMorgan AI Research)*; Prashant Reddy (JP Morgan); Manuela Veloso (JP Morgan)
	Navigating the Dynamics of Financial Embeddings over Time	Antonia Gogoglou	Antonia Gogoglou (Capital One)*; C. Bayan Bruss (Capital One); Alan O Salimov (Capital One); Brian Nguyen (Capital One); Jonathan Rider (Capital One)
12:00	<b>Lunch Break and Sponsor Booths (60 min) (Thursday)</b>	<b>Presenter/Host</b>	<b>Authors</b>
	Park Ave Chat	Simran Lamba	
	Madison Ave Chat	Gregory Gimler	
	Bank St Chat	Robert Tillman	
	Sponsor Booths Open	Andy Alexander	
13:00	Keynote 2: Yolanda Gil, USC (30 min)	Yolanda Gil	
13:30	<b>Park Avenue Session 3: Combatting Financial Crime (Thursday)</b>	<b>Presenter/Host</b>	<b>Authors</b>

	Power-law Mixtures of Bayesian Forests for Value Added Tax Audit Case Selection	Christos Kleanthous	Christos Kleanthous (Cyprus University of Technology)*; Theodoros Christophides (Cyprus University of Technology); Sotirios Chatzis (Cyprus University of Technology)	
	Machine learning methods to detect money laundering in the Bitcoin blockchain in the presence of label scarcity	Maria Ines P P Silva	Joana Lorenz (NOVA-IMS); Maria Ines P P Silva (Feedzai)*; David Aparicio (Feedzai); Joao Ascesao (Feedzai); Pedro Bizarro (Feedzai)	
	Deep Q-Network based Adaptive Alert Threshold Selection Policy for Payment Fraud Systems in Retail Banking	Hongda Shen	Hongda Shen (University of Alabama in Huntsville)*; Eren Kursun (Columbia University)	
	Learning-Based Trading Strategies in the Face of Market Manipulation	Xintong Wang	Xintong Wang (University of Michigan)*; Chris Hoang (University of Michigan); Michael Wellman (University of Michigan)	
13:30	14:30	<b>Madison Avenue Session 3: Risk-Averse Learning / Predicting Behavior (Thursday)</b>	<b>Presenter/Host</b>	<b>Authors</b>
		Foreign Exchange Trading: A Risk-Averse Batch Reinforcement Learning Approach	Lorenzo Bisi	Lorenzo Bisi (Politecnico di Milano)*; Pierre Liotet (Politecnico di Milano); Luca Sabbioni (Politecnico di Milano); Gianmarco Reho (Politecnico di Milano); Nico Montali (Politecnico di Milano); Cristiana Corno (Advanced Global Solutions); Marcello Restelli (Politecnico di Milano)
		Option Hedging with Risk Averse Reinforcement Learning	Edoardo Vittori	Edoardo Vittori (Politecnico di Milano)*; Michele Trapletti (Banca IMI); Marcello Restelli (Politecnico di Milano)
		Risk-Sensitive Reinforcement Learning: a Martingale Approach to Reward Uncertainty	Nelson Vadori	Nelson Vadori (JPMorgan)*; Sumitra Ganesh (JPMorgan); Prashant Reddy (JP Morgan); Manuela Veloso (JP Morgan)
		Predicting the Behavior of Dealers in Over-The-Counter Corporate Bond Markets	Yusen Lin	Yusen Lin (University of Maryland)*; Jinming Xue (University of Maryland); Louija Raschid (University of Maryland)
13:30	14:30	<b>Bank Street Session 3: Learning Trading Strategies (Thursday)</b>	<b>Presenter/Host</b>	<b>Authors</b>
		Multi-Agent Reinforcement Learning in a Realistic Limit Order Book Market Simulation	Michael Karpe	Michael Karpe (University of California, Berkeley)*; Jin Fang (University of California, Berkeley); Zhongyao Ma (University of California, Berkeley); Chen Wang (University of California, Berkeley)
		Deep Ensemble Reinforcement Learning for Automated Stock Trading	Xiao-Yang Liu	Hongyang Yang (Columbia University); Xiao-Yang Liu (Columbia University)*; Shan Zhong (Columbia University); Anwar Walid (Bell Laboratories)
		A Tabular Sarsa-Based Stock Market Agent	Renato A Oliveira	Renato A Oliveira (Federal University of Minas Gerais State)*; Heitor Ramos Filho (UFMG); Daniel Dalip (CEFET-MG); Adriano C. M. Pereira (UFMG)
		A Hybrid Learning Approach to Detecting Regime Switches in Financial Markets	Yi Zhou Tang	Peter Akiyamen (Western University)*; Yi Zhou Tang (Western University); Hussien Hussien (Western University)
14:30	15:00	<b>Coffee Break and Sponsor Booths (Thursday)</b>	<b>Presenter/Host</b>	<b>Authors</b>
		Park Ave Chat	Svitlana Vyetenko	
		Madison Ave Chat	Nelson Vadori	
		Bank St Chat	Mahmoud Mahfouz	
		Sponsor Booths Open	Apoorv Saxena	
15:00	15:30	<b>Poster Session (Thursday)</b>	<b>Presenter/Host</b>	<b>Authors</b>
		Extended Abstract: A Deep Learning Framework for Pricing Financial Instruments	Zhenming LIU	Qiong WU (College of William and Mary); Zheng Zhang (College of William and Mary); Zhenming LIU (College of William & Mary)*; Andrea Pizzoferrato (Queen Mary University of London); Chun Wang (Tsinghua University); Mihai Cucuringu (University of Oxford and The Alan Turing Institute)
		Extended Abstract: Adaptive Reduced Rank Regression	Qiong WU	Qiong WU (College of William and Mary)*; Felix Wong (IR); Yanhua Li ("Worcester Polytechnic Institute, USA"); Zhenming LIU (College of William & Mary); Varun Kanade (University of Oxford)
		Extended Abstract: Adversarial Attacks on Machine Learning Systems for High-Frequency Trading	Micah Goldblum	Micah Goldblum (University of Maryland)*; Avi Schwartzschild (University of Maryland); Ankit B Patel (Rice University); Tom Goldstein (University of Maryland, College Park)
		Extended Abstract: Directed Criteria Citation Recommendation and Ranking Through Link Prediction	William Watson	William Watson (S&P Global)*; Lawrence Yong (S&P Global)
		Extended Abstract: Financial Data Validation by Data Scientists versus Accountants	Stephanie Rosenthal	Stephanie Rosenthal (Carnegie Mellon University)*; Tingting (Rachel) Chung (College of William & Mary)
		Extended Abstract: Machine learning to compute implied volatility from European/American options	Shuaiqiang Liu	Shuaiqiang Liu (Delft University of Technology)*
		Extended Abstract: On embedding stocks	Zhenming LIU	Qiong WU (College of William and Mary); Zheng Zhang (College of William and Mary); Yanhua Li ("Worcester Polytechnic Institute, USA"); Zhenming LIU (College of William & Mary)*; Mihai Cucuringu (University of Oxford and The Alan Turing Institute)
15:30	16:00	AI in Finance Trivia Contest	Ketika Tyagi	
<b>ICAIF Main Conference Day 2</b>				
<b>Start</b>	<b>End</b>	<b>Friday, October 16, 2020</b>		
8:30	9:00	<b>Coffee Break (30 min) (Friday)</b>	<b>Presenter/Host</b>	<b>Authors</b>
		Park Ave Chat	Vamsi Potluru	
		Madison Ave Chat	Thomas Spooner	
		Bank St Chat	Salwa Alamir	
9:00	9:30	Keynote 3: Charles Elkan, Goldman Sachs (30 min)	Charles Elkan	
9:30	10:30	<b>Park Avenue Session 4: People and Finance (Friday)</b>	<b>Presenter/Host</b>	<b>Authors</b>

	Social media data reveals signal for public consumer perceptions	Neeti Pokhriyal	Neeti Pokhriyal (Dartmouth College)*; Abenezer Dara (Dartmouth College); Benjamin Valentino (Dartmouth College); Soroush Vosoughi (Dartmouth College)
	What can be learned from satisfaction assessments?	Naftali Cohen	Naftali Cohen (JP Morgan)*; Prashant Reddy (JP Morgan); Simran Lamba (JP Morgan)
	Mixed Membership Recurrent Neural Networks for Modeling Customer Purchases	John Paisley	Ghazal Fazelnia (Columbia University); Mark Ibrahim (Capital One); Ceena Modarres (Capital One); Kevin Wu (Capital One); John Paisley (Columbia University)*
	SURF: Improving classifiers in production by learning from busy and noisy end users	Joshua Lockhart	Joshua Lockhart (JP Morgan); Samuel Assefa (JP Morgan); Ayham Alajdad (JP Morgan); Andrew Alexander (JP Morgan); Tucker Balch (JP Morgan); Manuela Veloso (JP Morgan)*
	<b>Madison Avenue Session 4: Information, News and Markets (Friday)</b>	<b>Presenter/Host</b>	<b>Authors</b>
	Utilization of Deep Learning to Mine Insights from Earning Calls for Stock Price Movement Predictions	Zhiqiang Ma	Zhiqiang Ma (S&P Global)*; chong wang (S&P Global ); Grace Bang (S&P Global); Xiaomo Liu (S&P Global)
	Choosing News Topics to Explain Stock Market Returns	Kriste Krstovski	Paul Glasserman (Columbia University); Kriste Krstovski (Columbia University); Paul Laliberte (Columbia University); Harry Mamaysky (Columbia Business School)*
	An Analysis of political turmoil effects on stock prices - a case study of US-China trade friction -	Yukari Shirota	Yukari Shirota (Gakushuin University)*; Kenji Yamaguchi (Ochanomizu University); Akane Murakami (Gakushuin University); Michiya Morita (Gakushuin University)
	Quantifying ESG Alpha in Scholar Big Data: An Automated Machine Learning Approach	Xiao-Yang Liu	Qian Chen (Columbia University); Xiao-Yang Liu (Columbia University)*
	<b>Bank Street Session 4: Data and Finance (Friday)</b>	<b>Presenter/Host</b>	<b>Authors</b>
	Understanding Distributional Ambiguity via Non-robust Chance Constraint	Shumin Ma	Shumin Ma (City University of Hong Kong); Cheuk Hang Leung (City University of Hong Kong); Qi Wu (City University of Hong Kong)*; Wei Liu (Tencent), Nanbo Peng (JD)
	Paying down metadata debt: learning the representation of concepts using topic models	Jiahao Chen	Jiahao Chen (JPMorgan Chase & Co.)*; Manuela Veloso (JP Morgan)
	Generating synthetic data in finance: opportunities, challenges and pitfalls	Samuel Assefa	Samuel Assefa (J.P.Morgan)*; Daniel Dervovic (JPMorgan Chase & Co.); Mahmoud Mahfouz (J.P. Morgan); Robert Tillman (J.P. Morgan Chase & Co); Prashant Reddy (JP Morgan); Manuela Veloso (JP Morgan)
	Learning Sampling in Financial Statement Audits using Vector Quantised Autoencoder Neural Networks	Marco Schreyer	Marco Schreyer (University of St. Gallen)*; Timur Sattarov (Deutsche Bundesbank); Anita Gierbl (University of St. Gallen); Bernd Reimer (PricewaterhouseCoopers WPG); Damian Borth (University of St. Gallen)
10:30	11:00 Coffee Break and Sponsor Booths (30 min)	<b>Presenter/Host</b>	<b>Authors</b>
	Park Ave Chat	Gregory Gimler	
	Madison Ave Chat	Rob Tillman	
	Bank St Chat	Natraj Raman	
	Sponsor Booths Open	Manuela Veloso	
11:00	11:30 Keynote 4: Michael Kearns, UPenn (30 min) (Friday)	Michael Kearns	
11:30	12:30 <b>Park Avenue Session 5: AI for Fairness and Compliance (Friday)</b>	<b>Presenter/Host</b>	<b>Authors</b>
	Unsupervised-learning financial reconciliation: a robust, accurate approach inspired by machine translation	Peter A Chew	Peter A Chew (Galisteo Consulting Group Inc)*; Peter Chew (Galisteo Consulting Group Inc)
	Explainable Clustering and Application to Wealth Management Compliance	Enguerrand Horel	Enguerrand Horel (Stanford University)*; Kay Giesecke (Stanford University); Victor Storchan (J.P. Morgan); Naren Chittar (J.P. Morgan)
	Optimal, Truthful, and Private Securities Lending	Emily R Diana	Emily R Diana (University of Pennsylvania)*; Michael Kearns (University of Pennsylvania); Seth V Neel (University of Pennsylvania); Aaron Roth (University of Pennsylvania)
	Towards Self-Regulating AI: Challenges and Opportunities of AI Model Governance in Financial Services	Jiahao Chen	Eren Kursun (Columbia University); Hongda Shen (University of Alabama in Huntsville)*; Jiahao Chen (JPMorgan Chase & Co.)
	<b>Madison Avenue Session 5: Computer Vision and Finance (Friday)</b>	<b>Presenter/Host</b>	<b>Authors</b>
	Financial Table Extraction in Image Documents	William Watson	William Watson (S&P Global)*; Bo Liu (Nvidia)
	Trading via Image Classification	Naftali Cohen	Naftali Cohen (JP Morgan)*; Tucker Balch (JP Morgan); Manuela Veloso (JP Morgan)
	Classifying High-Frequency FX Rate Movements with Technical Indicators and Inception Model	Zheng Gong	Zheng Gong (University of Essex)*; Carmine Ventre (King's College London); John O'Hara (University of Essex)
12:30	13:00 <b>Lunch Break and Sponsor Booths (30 min) (Friday)</b>		
	Park Ave Chat	Simerjot Kaur	
	Madison Ave Chat	J Reinier Maat	
	Bank St Chat	Qi Wei	
	Sponsor Booths Open	Daniele Magazzeni	
13:00	13:30 Keynote 5: Susan Tibbs, FINRA (30 min) (Friday)	Susan Tibbs	
13:30	13:45 <b>Coffee Break (15 min) (Friday)</b>	<b>Presenter/Host</b>	<b>Authors</b>
	Park Ave Chat	Armineh Nourbaksh	
	Madison Ave Chat	Naftali Cohen	
	Bank St Chat	Suchetha Siddagangappa	
13:45	14:30 Panel: AI in Financial Regulation and Compliance (45 min) (Friday)	Eren Kurshan	Eren Kurshan (BoA); Larry Wall (Federal Reserve Bank); Jon Kroeper (FINRA); [US Treasury tbd], Charles Elkan (Goldman Sachs), Manuela Veloso
14:30	15:00 Keynote 6: Marcos López de Prado, True Positive (30 min) (Friday)	Marcos López de Prado	

