



## **Fintech and Big Data Financial Analytics**

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<b>Office Hours</b>	By appt.

### **1. Course Overview**

Recent technology innovations have reshaped the finance industry, leading to the emergence of Fintech and Techfin. Fintech has changed how financial information is disseminated, processed and analyzed. Individual investors and financial institutes who are able to leverage the new IT to analyze the big financial data will have a leading edge. This class discusses these new opportunities and challenges. It seeks to equip students with these highly coveted knowledge and skills. Main topics to be covered will include: artificial intelligence for financial analytics, algorithm trading with big data, cryptocurrency and blockchain and Robo-advisor. The class will use Python to demonstrate some of the analytical solutions, but programing skill is not required.

### **2. Grading**

The grade breakdown is as follows:

1. Class participation: 20%
2. Assignment (1): 20%
3. Group project: 30%
3. Final exam: 30%

### **3. Course Schedule**

<b>Topic</b>	<b>Readings</b>	<b>Deliverables</b>
Course overview, Fintechbreakdown	1,2	
AI in Finance	3,4	
More AI and algorithm trading	5	
Algorithm trading with big data; Social trading: case of eToro	6	
Cryptocurrency and Blockchain	7,8,9	Assignment 1 due
Robo-advising	10,11,12	
Fintech startups; Invited speaker from Aquamon.com		
Final exam		
		Group Project due

#### 4. Readings and Cases

1. In Lee; Yong Jae Shin. Fintech- Ecosystem, Business Models, Investment Decisions, and Challenges. Business Horizons 2018
2. Yiorgos Allayannis; Joseph M. Becker. A Global Fintech Overview. Darden Business School Technical Note. 2019
3. Lauren H. Cohen; Christopher J. Malloy; William Powley. Artificial Intelligence and the Machine Learning Revolution in Finance: Cogent Labs and the Google Cloud Platform (GCP), HBR 2018
4. Ethan S. Bernstein, Paul D. McKinnon, Paul Yarabe. GROW-Using Artificial Intelligence to Screen Human Intelligence. HBR Case 2019
5. Yanfeng Zheng. Quants in Utopia-Quantopian and Its Crowd Wisdom Hedge Fund Model. Asia Case Research Centre, 2017
6. Yanfeng Zheng. eToro: what is next for the world's largest social trading platform. Aisa Case Research Centre. 2018
7. Anne Yang; Xuexin Gao; Hong Zhang; Massimo Massa. R3: Putting the "fin" back in FinTech. Insead case. 2019
8. Jean-Philippe Vergne; Alexander Li. TokenFunder: Democratizing Funding and Investing with Blockchain. Ivey Case. 2018
9. Ramana Nanda; Robert F. White; Alexey Tuzikov. Blockchain, Cryptocurrencies and Digital Assets, HBR 2017
10. Luis M. Viceira; Allison M. Ciechanover. The Wealthfront Generation. HBR 2016
11. Christopher J. Malloy; Lauren H. Cohen; Anthony K. Woo. Lufax: FinTech and the Transformation of Wealth Management in China. HBR 2018
12. Rujing Meng; Fang Zhu. A chairman decision-launching a robo-advisor in CCB principal asset management company. Aisa Case Research Centre. 2019