

Blockchain & FinTech @UCF

Eshwar Venugopal, Department of Finance
University of Central Florida

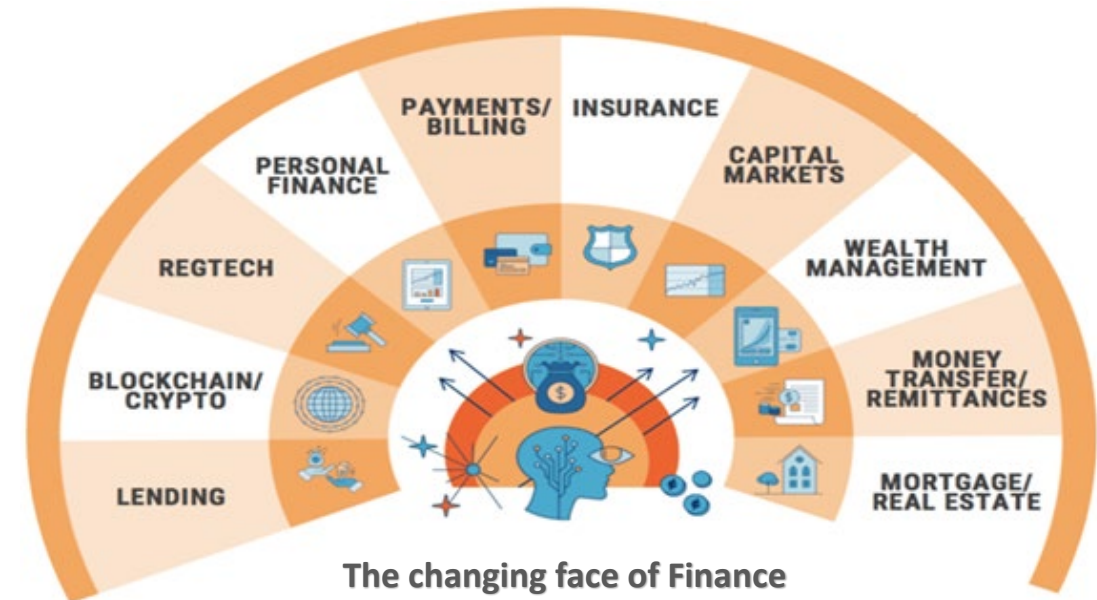
About UCF

- The University of Central Florida is an emerging preeminent research university located in metropolitan Orlando, Florida—founded in 1963.
- With *more than 68,000 students*, UCF is one of the largest universities in the U.S.
- Among nation's “*Most Innovative Universities*” alongside Harvard, MIT, Stanford, Duke and Georgia Tech. — *U.S. News & World Report Best Colleges 2019*



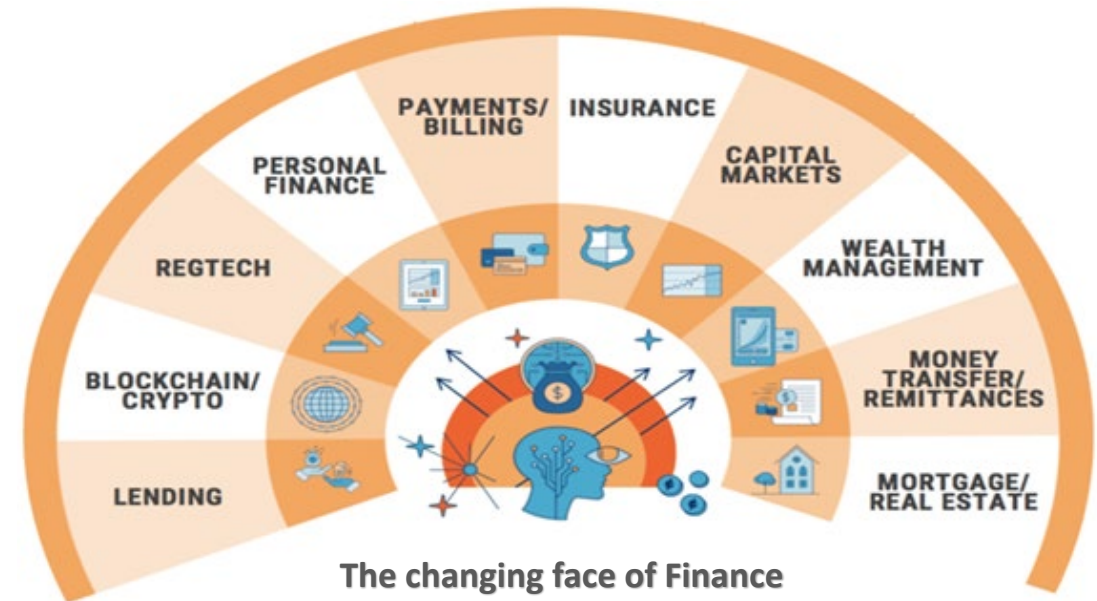
Blockchain & FinTech @UCF

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- One of the *first FinTech program* in the U.S.
- Unique joint-venture between:
 - College of Business Administration
 - College of Engineering and Computer Science





About UCF College of Business

- A next generation business school that emphasizes a *culture of engagement with the business community*.
- Established in 1968, the college offers degrees to over 9,000 students at the bachelor's, master's, doctoral and executive levels.
- Home to the Kenneth G. Dixon School of Accounting, Departments of Economics, Finance and Dr. P. Phillips School of Real Estate, Integrated Business, Management and Marketing and DeVos Sport Business Management.
- All programs are accredited AACSB.
- Named *one of Best Business Programs in the U.S.— U.S. News & World Report 2018*

About UCF College of Engineering & Computer Science

- Ranked in the top 50 public graduate engineering colleges nationwide—*U.S. News & World Report 2019*
- Offers programs to over 11,000 students in civil, computer, electrical, environmental, industrial, materials, and mechanical engineering—all seven ranking in the Top 100—*U.S. News & World Report's Best Graduate Schools of 2018*
- Home to the four-time national champion UCF Collegiate Cyber Defense Competition Team
- UCF produces more graduates who get jobs in aerospace and defense companies than any other U.S. university—*2016 Aviation Week magazine workforce study*



Master of Science in FinTech

First Master's Degree program of its kind in the U.S.

M.S. in FinTech @UCF

- 2-year interdisciplinary masters program.
 - 30 credits in lockstep sequence.
 - 5 Finance course and 5 Computer Science courses.



The graphic features a blue and yellow color scheme with a background of digital code and network lines. At the top right is the UCF logo. The central text reads "MASTER OF SCIENCE IN FinTech". Below this is a quote from Governor Ron DeSantis: "We are committed to making Florida the top destination for FinTech companies to grow and succeed." At the bottom, it states "Jointly offered by the College of Business & College of Engineering and Computer Science".

UCF

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YEAR	FALL	SPRING
Year 1	Computational Methods in FinTech I	Artificial Intelligence for FinTech
	Full Stack Development for FinTech	Computational Methods in FinTech II
	Strategic Financial Management	Foundations in FinTech
Year 2	Blockchains and Smart Distributed Contracts	FinTech Entrepreneurship (Capstone)
	Analysis of Investment Opportunities	
	FinTech in Decision Making	

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- *Currently awaiting approval from the Board of Governors.*

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What Industry is Saying

- *"...I do believe it will better prepare them to hit the ground running at financial services firms. There definitely is **significant need for these skills in the financial services industry.**"*
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—Dr. David Yermack, Chair, Finance Department, NYU Stern School of Business
- *"...I am particularly impressed by the fact that your future graduates will have backgrounds and training in both engineering and finance. This **program will be an asset not only to UCF but will also be a magnet for Central Florida for start-up activity in the FinTech space.**"*
—Raj Trikha, Head, Industrial, Energy and M&A Groups, KeyBanc Capital Markets, Inc.



FinTech @Undergraduate

Certificate and Minor

FinTech @Undergraduate

- College of Business launched a **Certificate** and **Minor** in FinTech for *Business* and *Computer Science* students in Spring 2019.



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 - Foundations of FinTech
 - FinTech for Decision Makers



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- Next step: Extend certificate to College of Engineering and Computer Science students



Blockchain @UCF

Students & Faculty Activities

Blockchain @UCF: Research

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 - Prof. Mainak Chatterjee was funded by *Florida Center for Cybersecurity* to study blockchain.
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 - *Sample research papers:*
 - Towards Characterizing Blockchain-based Cryptocurrencies for Highly-Accurate Predictions (Saad et al. 2018, IEEE Systems Journal)
 - Fighting Fake News Propagation w/Blockchains (Saad et al., 2019, IEEE CNS)
 - Towards blockchain-driven, secure and transparent audit logs (Ahmad et al., 2018, ACM)
 - Economics of Blockchain-based Solutions (Venugopal, 2019, WP)



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 - Economics of Blockchain-based Solutions (Venugopal, 2019, WP)
- Partnered w/Tel Aviv Univ. to fuel Blockchain research & education.



Blockchain @UCF: Teaching

■ Undergraduate Level:

- 2-week introduction to building a Blockchain as part of *Foundations of FinTech* class.
- We built a “toy” blockchain that can record transactions, reach consensus and mine blocks.



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■ Doctoral Level:

- Students conducting research on Blockchain (e.g., Dr. Ashar Ahmad)



Industry Engagement @UCF

- The Finance and Computer Science departments are actively engaging the industry to form partnerships.
 - *Financial Institutions:* Goldman Sachs, Bank of America, Chase, Fairwinds, Addition Financial, etc.
 - *Startups:* FattMerchant, Betterment, TRON, etc.



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- *Industry is at the forefront* of developing this fast-paced technology.
 - Industry involvement is necessary for promoting education and creating jobs in Florida.
 - *Bottleneck:* Industry experts without a doctoral degree cannot teach at our Universities.
 - More academia-industry collaboration is required to keep pace with labor market demand.



Blockchain @UCF: Student Engagement

- Cryptocurrency hype has led to an active student community studying Blockchain.
 - ACE, a student club, operating since 2017 helps to connect students with experts in the blockchain, smart contracts and cryptocurrencies.
 - Bi-weekly meeting/presentations by academic/industry practitioners and experts.



business.ucf.edu/fintech



Image Sources

- UCF: <https://www.ucf.edu/>
- UCF FinTech: <http://business.ucf.edu/fintech>
- Key Bank: <https://www.key.com/>
- DemeTree Global: <https://www.demetreeglobal.com/>
- ACE: <http://ucfcrypto.com/>
- FinTech Report: <https://www.cbinsights.com/>