



# NUS FinTechSG Programme

**Develop skill sets specific to the FinTech industry and gain a firm foothold in the ever-changing job market.**

## **WHY SHOULD YOU JOIN OUR PROGRAMME?**

- Industry sought professional certification in FinTech leading to job employment opportunities in leading Financial Institutions / Companies
- Intensive programme; yet only 3 months long
- Programme is fully funded (for eligible students)

# OVERVIEW

The NUS FinTechSG Programme is designed to enhance the competitiveness of the Singapore FinTech Industry. The programme is jointly developed by the National University Singapore (NUS) School of Computing (SoC) and AI Singapore, in consultation with experts in innovation and FinTech from UBS Bank, RIPPLE, World Economic Forum, Bank of New York Mellon.

Participants enrolled in the NUS FinTechSG Programme will undergo a structured 3-month intensive full-time course on the fundamentals of FinTech, business, programming concepts, as well as gain insights and learn development tools. Upon completion of the programme, they shall be awarded with 3 Professional Certificates in FinTech and a Certificate in NUS FinTechSG Programme. Participants can choose to proceed to attend the E-Speed interview.

The E-Speed Interview allows our graduates to virtually meet and connect with employers of their choice and to explore roles that suit their interests. The interviewees have to try their best to leave a good first impression on the recruiters to get into further rounds of interviews and ultimately, landing the job.

## COMPANIES WE ARE WORKING WITH



UBS



BANK OF SINGAPORE  
International Private Banking





# OUR PROGRAMME EMPHASIZES ON:

- Future-Proofing Participants – Participants will learn about the latest technology, end to end ways of thinking to tackle problems in technology, business and design. Learned skills are fully practical in nature and will be honed by working in teams on tangible projects from a variety of use cases. Students who do well in the program will be hired in new roles/positions by firms dealing with emerging technology.
- Onboarding talent to sunrise companies – Companies look for the right talent and traits that show willingness to change, flexibility and resilience. Participants shall be onboarded to establish digitally ready organizations to work on and curate tangible projects that are commercially viable to end-users.
- Preserving Singapore's leadership in technology for the next 50 years – Our homeland must be a hub for talent. It is with hopes in this programme that we instill the spirit of lifelong learning in our participants, that they become successful and lift others up in the process, just like how our nation was built.

## LEVEL 1

Participants will get a good overview of FinTech by understanding the whys of FinTech and the concepts, cases and designs that lead to success. The key issues faced by various segments of the financial industry will be fleshed out, as well how FinTech answers this challenge without the need for heavy capital, as well as the advantages/disadvantages banks have over financial technology companies/startups. This overview also delves into examples of technologies used in the financial industry such as artificial intelligence (AI) and machine learning (ML).

## LEVEL 2

Participants will dive into technical programming and be exposed to various tools and techniques, project exploration and learn to use project management tools. They will also explore the front end and back end, where they will learn in web development technologies such as HTML, CSS, JavaScript, Node JS, ReactJS and data structures that are used in various computational problems.

Participants will also learn the fundamentals frameworks of Robotic Process Automation (RPA) and how to create bots that perform various repetitive processes. Besides software based training for RPA, there will also be training on Application Programming Interface (API) connections to automate various database processes which involve data handling and process execution.

## LEVEL 3

In DevOps, this course gives you hands-on experience on the world's most popular RDBMS databases like MySQL and NoSQL databases like MongoDB and Redis. This course seeks to equip its learners with cloud computing concepts and demonstrates how companies can save time and money by pushing certain offline/internal business processes onto the cloud.

The participant will also learn about smart contracts and blockchain technology in a hands-on manner by applying them to use cases in real estate, e-wallets and other payment systems.

Lastly, in the algo trading course, participants will learn to leverage ML and RPA to build robust algo trading models in an attempt to generate higher-than-market returns.



# TRAINING ROADMAP

## Professional Certificate: Fintech Associate (Level 1)

**FinTech : Concepts, Cases and Technology**  
(1 Day)

**Design Thinking : Creative and Strategic Business Solutions**  
(2 Days)

**Beyond Disruptions : Digitalising Financial Services**  
(2 Days)

**Delight Customers and Protect Privacy with AI and Blockchain**  
(1 Day)



## Professional Certificate: Fintech Developer (Level 2)

**Developers Toolkit Part 1: Connecting the Frontend**  
(2 Days)

**Developers Toolkit Part 2: Middleware to Backend**  
(3 Days)

**APIs and RPA: Automation, Bots and Future**  
(2 Days)



## Professional Certificate: Fintech Senior Developer (Level 3)

**DevOps: Build, Deploy and Monitor**  
(2 Days)

**Making Contracts Smart with Blockchain**  
(1 Day)

**Algo-Trading, Theory and Practice**  
(3 Days)



**E-Speed Interview (Optional)**

*(Subject to Change)*

## WHO SHOULD ATTEND?

Anyone interested in delving into the Financial Technology sphere and is willing to work for the knowledge.

Note: You should be at least a Diploma or a Degree holder.



# INDUSTRY EXPERTS' SENTIMENTS ON FINTECHSG

As digitisation becomes an essential anchor for our economy, it is crucial to provide companies with a foundation – including knowledge, experience and resources – for future ready talent and enterprises to truly succeed. The NUS FinTech Lab is at the forefront of this mission to join forces across the industry and provide the best collective intelligence and tools for everyone to navigate the digital future.

*Professor Mohan Kankanhalli  
Dean of NUS School of Computing  
Chairman of the FinTech Lab Advisory Board*



Singapore is one of the core innovation hubs in Asia, and is well-positioned to leverage FinTech to create new opportunities for the economy. We aim to harness this potential by enabling aspiring talents to learn about this fast-evolving field and encourage innovative firms to bring their proof of concepts to life by offering on-the-job training for the students. As a part of the ongoing collaborative efforts among government, academia and the industry, we believe this programme will accelerate the nation's digital growth and empower enterprises to leverage FinTech and bolster Singapore's virtual economy.

*Professor Alex Siow  
NUS School of Computing*

From Grab to Shopee, we are using FinTech-powered platforms every day. Yet, many hesitate to dive in and learn about FinTech since it sounds distant. That is why the NUS-FinTechSG Programme is uniquely designed to make FinTech accessible, whether your background is in the arts, engineering, tourism, transportation or retail. The programme is designed in a pragmatic and approachable way, so that it can give everyone the skills needed to qualify for over 2,000 job openings in the banking and finance sectors.

*Associate Professor (Practice) Keith B. Carter  
Director of the NUS FinTech Lab*







"For UBS, innovation and digitalisation are key strategic priorities. Singapore is a key regional centre for our Global Wealth Management, Investment Bank and Asset Management businesses as well as the home to our region's UBS Evolve Innovation Center. UBS is excited to be partnering with FinTechSG to support the future of Singapore's innovation ideas, start-ups, technology companies and the financial services sector."

*James Aylen*  
*UBS Head of Innovation*

"This is an exciting collaboration - the programme will accelerate Singapore's SMART Nation agenda and empower FinTechs to grow Singapore's digital economy. We are thrilled to work with the youth of today and nurture the next generation of FinTech talents in Singapore."

*Lee Li Meng*  
*Chief Strategy Officer, Razer and Chief Executive Officer,*  
*Razer Fintech*



## Instructors

Dr Anand Bhojan - <https://ace.nus.edu.sg/dr-anand-bhojan/>

Ms Diana Leng - <https://ace.nus.edu.sg/about-us/executive-education-fellow/diana-leng/>

Dr Guo Lei - <https://ace.nus.edu.sg/about-us/executive-education-fellow/guo-lei/>

Ms Joelle Choo - <https://ace.nus.edu.sg/about-us/executive-education-fellow/joelle-choo/>

Mr Jon Scheele - <https://ace.nus.edu.sg/about-us/executive-education-fellow/jon-scheele/>

Assoc Prof Keith Carter - <https://ace.nus.edu.sg/about-us/course-leaders/keith-barrett-carter/>

Mr Phil A. Woods - <https://ace.nus.edu.sg/phil-a-woods/>

Mr Uli Hitzel - <https://ace.nus.edu.sg/about-us/executive-education-fellow/uli-hitzel/>

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