



TECH IS EATING FINANCE

— Are you ready? —

CFTE

About CFTE

Founded in 2017 in London, CFTE is a global platform for education in Fintech and the future of financial services.

More than 100,000 professionals from 100+ countries have participated in CFTE programmes to accelerate their careers in Fintech and new finance. In addition to London, CFTE is present in Singapore (accredited by Institute of Banking and Finance), Abu Dhabi (Abu Dhabi Global Market Academy), Hong Kong (Cyberport), Malaysia (Asian Banking School), Luxembourg (Luxembourg Academy of Digital Finance Academy with LHOFT) and Budapest (Budapest Institute of Banking).

CFTE's objective is to equip professionals and students with the skills to thrive in the new world of finance. This includes online courses and specialisations, leadership training and hands-on entrepreneurship experiences in topics such as Fintech, Open Banking, Digital Payments or Artificial Intelligence.

“In a tech world, we bet on people” is CFTE's motto. Our global community is the core of CFTE. Thanks to an innovative and open mindset, CFTE alumni progress in their careers and help others do the same, with notable alumni leading transformation in their organisations.

CFTE believes that the new world of finance will be inclusive, diverse, and innovative and will positively impact society and people. This starts with people having the proper knowledge and mindset so that no one is left behind. Whether you want to learn, contribute or generally be part of the new world of financial services, we look forward to welcoming you.

PREFACE

IT'S A GOOD TIME TO BE IN FINANCE!



Tram Anh Nguyen

CFTE Co-founder



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Ten years ago, the nascent Fintech industry was made up of young entrepreneurs with big visions of changing financial services. Like any innovations, a few early adopters were enthusiastic about this new Fintech phenomenon, but many were unconvinced about the impact of new entrants into a regulated industry such as Finance.

Very few, however, could have predicted that out of the ten largest financial institutions in the world, there are only five banks left. And the job positions in Fintech increase more rapidly than the ones in traditional financial institutions.

The digital transformation of Finance is therefore well underway, with important consequences in business model, value chain, operating model, and most importantly, 'people'.

This leads to great opportunities, whether in banks, fintech startups or tech companies. But are you ready?

This illustrated book of the **Fintech Job Report** provides a lens into different job categories and the skills required in financial services. It also gives you insights into how the nature of skills is changing. These are significant trends relevant to individuals, organisations, governments, regulators and universities.

PART 1

LAST TEN YEARS IN FINANCE

Since the subprime crisis of 2008, the financial industry has been profoundly reshaped by the Fintech phenomenon.

The most notable impact was the rise of new entrants, especially Fintech startups, which surfed on the wave of new consumer behaviours, adoption of mobile technologies and regulatory changes.

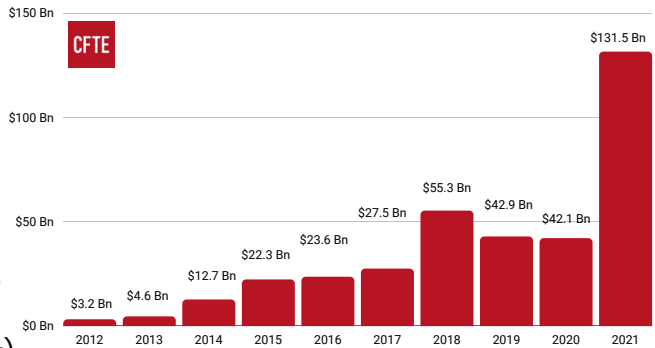
While Fintech was a confidential sector a decade ago, it has now grown to be an important part of financial services. Consumers have widely adopted Fintech, and as an industry, Fintech has grown - very - rapidly.



What happened in the last 10 years...

VC fundings didn't stop...

Fintech was supported by an accelerating inflow of venture money - which started at around \$3bn / year ten years ago and to roughly \$131.5 bn/ year now. (CB Insight)



225

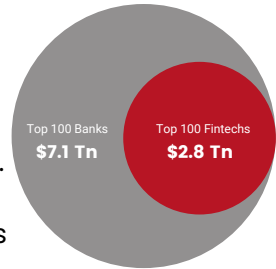
Fintech Unicorns

... and new players appeared.

Overall, there are now 225 Fintech "Unicorns", i.e. companies which are valued at more than \$1bn. We cannot deny that the Fintech industry has hugely evolved, from tiny startups to billion-dollar international companies.

Fintech is worth more than a third of banking...

The 100 largest banks have a combined market capitalisation of \$7.1 trillion, while the 100 largest Fintech companies have a combined market capitalisation of \$2.8 trillion. In other words, Fintech as an industry is as big as 38% of banking. These are incredible numbers considering that Fintech has been around for 10 years vs. hundreds of years for banking.



5 of the top 10 financial services are now **digital-based businesses**

2010				2021			
Rank	Company	Valuation (\$bn)	Country	Rank	Company	Valuation (\$bn)	Country
1.	ICBC	233	China	1.	VISA	449	USA
2.	中国建设银行 China Construction Bank	222	China	2.	mastercard	335	USA
3.	HSBC	180	UK	3.	JPMORGAN CHASE & CO.	315	USA
4.	JPMORGAN CHASE & CO.	165	USA	4.	ICBC	246	China
5.	WELLS FARGO	162	USA	5.	BANK OF AMERICA	233	USA
6.	中国银行 BANK OF CHINA	139	China	6.	PayPal	225	USA
7.	citi	137	USA	7.	蚂蚁集团 ANT GROUP	200	China
8.	中国农业银行 AGRICULTURAL BANK OF CHINA	135	China	8.	Tencent 腾讯 Fintech	200	China
9.	BANK OF AMERICA	134	USA	9.	中国建设银行 China Construction Bank	176	China
10.	Itaú UNIBANCO	97	Brazil	10.	招商银行 CHINA MERCHANTS BANK	132	China

In 2010, the top 10 financial services were dominated by banks; however, the digital transformation of Finance is well underway, with significant consequences in business model, value chain, operating model, and most importantly, "people".

Finance is different from 10 years ago, and Fintech is no longer a flash in the pan. Fintech represents an industry that is important to consider in general, particularly from an employment perspective. So...

How big of an employer Fintech is?

PART 2

FINTECH AS AN EMPLOYER: HOW MANY PEOPLE WORK IN FINTECH?



If a decade ago Fintech was attracting those interested to join small unproven startups, this is now a much more mature industry in terms of size and stability of jobs offered.

Total number of people working in Fintech

Fintech employees

300K

40K

Fintech job
Opening

Our analysis of the 225 Fintech companies shows that they employ 300,000 people. This ranges from more than 25,000 people for a largest organisation, such as Paypal, down to 200 for a smallest organisation. On average, each of these Fintech companies employs 1,300 people.

However, these numbers only reflect the jobs offered at a certain time, but as these jobs are filled up and new hiring needs arise, the number of open positions will fluctuate..



1300

Average number of employees
per Fintech unicorn



25,000

Employees working in the
largest Fintech organisation



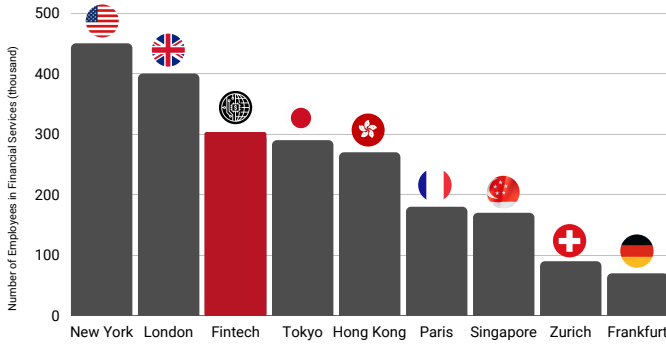
200

Employees working in the
smallest Fintech organisation

Fintechs are growing at a tremendous rate, so naturally, they need people. Although it is difficult to have an exact number, we estimate that the Fintech industry might advertise...



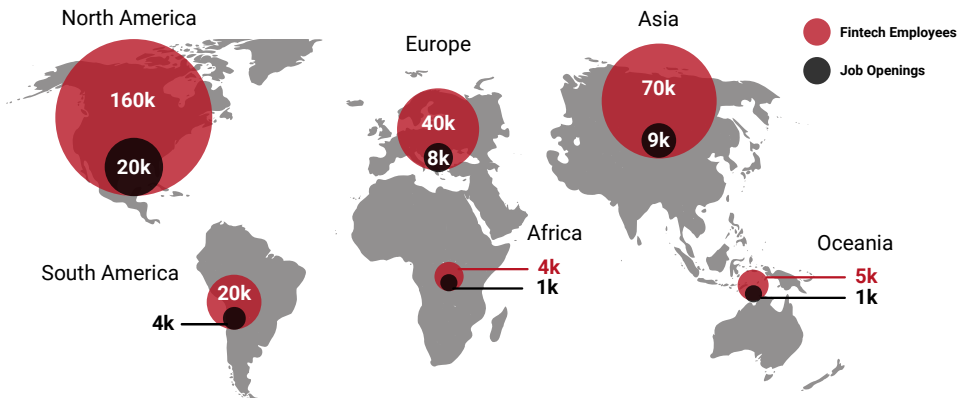
**Between 80,000
to 100,000 new jobs
in the next year.**



As an industry, Fintech has reached a reasonable size as an employer. For example, New York and London employ 450,000 and 400,000 people in the financial sector, respectively. Fintech, which employs roughly 300,000 people, is the 3rd largest city, just behind New York and London.

Fintech jobs worldwide

North America accounts for the most significant part of Fintech, while Europe and Asia chase after it. In recent years, a growing Fintech industry has had the potential to create more opportunities in Africa and other developing countries.



Now, you know the trend in the market and how many people are involved in the Fintech industry. **It's hard to ignore it** - Fintech is definitely becoming a sector as a whole that is growing much faster than traditional finance. Now, it represents an interesting sector for professionals, companies and students.

PART 3

WHAT ARE THE JOBS IN FINTECH?



With 40,000 jobs offered by Fintech companies, there is no shortage of information about job roles for Fintech. However, making sense of this information is a challenging task: we lack a taxonomy.

The *triple* challenge: Categorising Fintech Jobs

1 It's a very broad sector

Fintech is a broad industry that includes diverse sectors, such as insurance and cryptocurrencies, with very different job requirements.

A lot of new jobs

Many positions did not exist a few years ago in Fintech, such as blockchain programmers and cyber fraud investigators.

3 Differences between title names and jobs

Fintech companies might create a job title that has little equivalence. In addition, a role with the same job title might mean something different between the two organisations.

**How to
categorise ?**



Reference all the jobs in Fintech

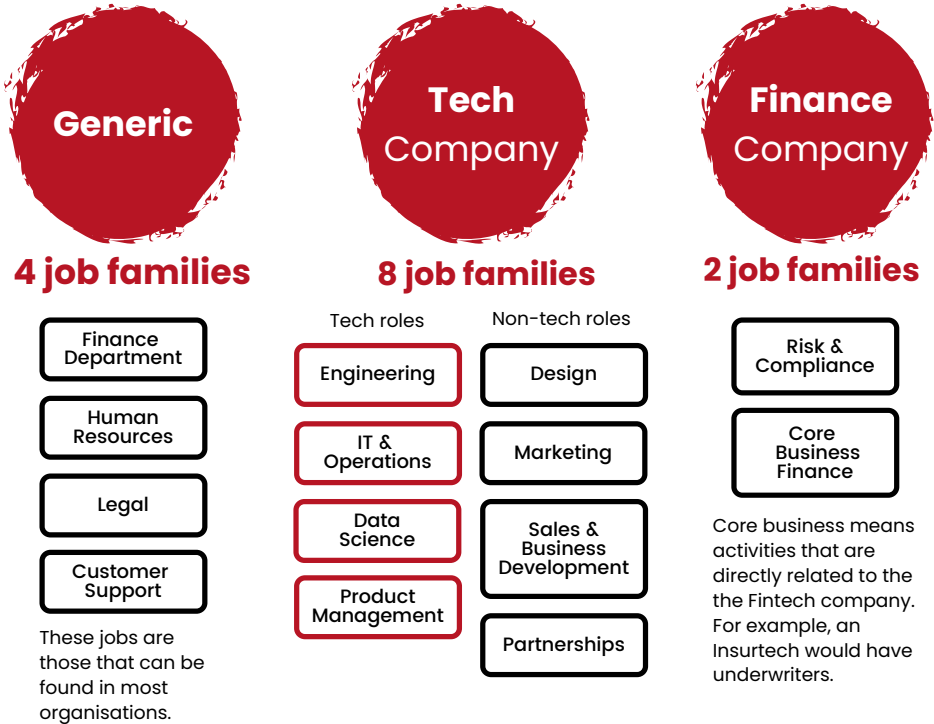


Creation of a taxonomy

What is the taxonomy?

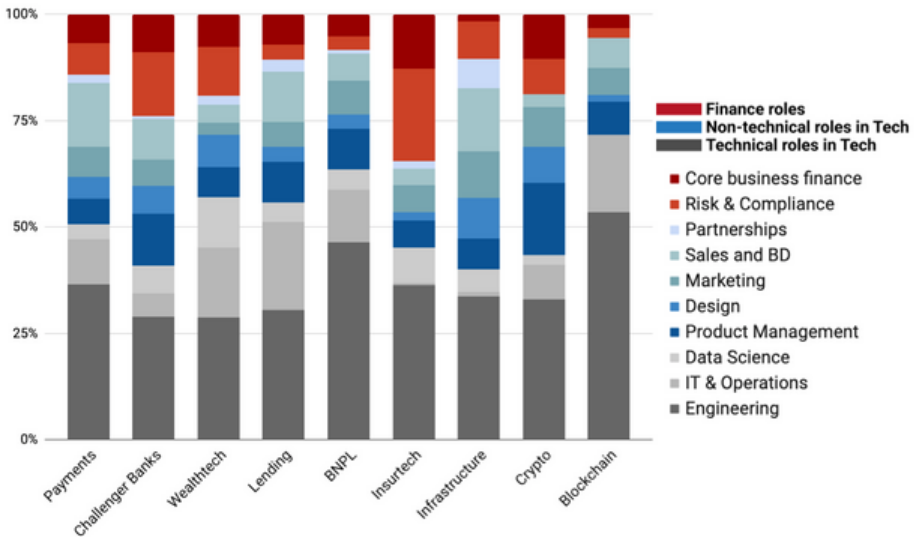
We have identified **14 job families** that could be grouped in different ways, either through similarities (for example, Business Development and Marketing) or the frequency of jobs offered. Taking the perspective of applicants and Fintech entrepreneurs, we decided to group the job families according to the **type of organisations**.

We found that Fintech job families fall into three categories: jobs found in most organisations, jobs found in Tech companies, jobs found in financial services.



If we only consider the number of job families, Fintech companies would be much more **similar to Tech companies** than financial companies. We, therefore, analysed the number of job openings per family across **nine sectors**.

SPLIT OF JOBS IN FINTECH



“

In terms of jobs, Fintech is closer to tech than finance

”

The **“Tech” jobs** represent from **70% to 90%** of the job openings, with 50% to 65% being Tech roles, and the rest being non-tech.



The **“Finance” jobs** represent from **10 to 30%** of the job openings. On average, 80% of the positions in Fintech companies would be similar to jobs in Tech companies. That's the reason why we came up with the conclusion **“Tech is eating finance”**.

Now, let's see what the jobs are →

60 JOB ROLES IN FINTECH

1. Engineering

1. Frontend Engineer
2. Backend Engineer
3. Full Stack Engineer
4. Platform Engineer
5. Machine Learning Engineer
6. Solutions Engineer
7. Data Engineer
8. Security Engineer

2. IT & Operation

1. Consumer Operations
2. Insurance Operations
3. Fraud Operations
4. Business Operations
5. Operational Risk

3. Data & Science

1. Data Analyst
2. Data Engineer
3. Data Quality Analyst
4. Big Data Engineer
5. Data Scientist
6. Analytics Manager
7. Data Automation Developer
8. Business Intelligence Analyst
9. Data Infrastructure Analyst

4. Product Management

1. Core Business
2. Platform
3. Risk & Compliance
4. Data

5. Design

1. Product Designer
2. Content Designer
3. Art Director
4. UX Writer
5. UX Researcher

6. Marketing & Communications

1. Growth Marketer
2. Communications
3. Copywriter
4. CRM
5. Performance Marketing
6. Marketing Automation

7. Sales & Business Development

1. Enterprise Sales
2. Business Development
3. Sales Engineer
4. Partner Sales

8. Partnerships

1. Sales Partnerships
2. Marketing Partnerships

9. Risk & Compliance

1. Compliance Officer
2. Risk Intelligence Engineer
3. Privacy Engineer
4. Fraud Officer
5. AML Officer
6. Financial Crime Officer
7. Cyber Fraud Investigator
8. Regulatory Policy Officer
9. Technical Program Manager

10. Core Business Finance

1. Credit Analyst
2. Portfolio Analyst
3. Underwriter
4. Fraud Analyst
5. Treasury Analyst
6. Claims Specialist
7. Actuary

PART 4

WHAT ARE THE SKILLS IN FINTECH?

We understand that Fintech is rapidly transforming the financial sector landscape and creating more market opportunities.

As seen from the growth of Fintech, the evolution of Fintech roles is still ongoing, meaning that some new roles are being created. But at the same time, the **ongoing skills gap** in financial services is further widening as employers' needs constantly change.

SKILLS

How to reskill my team?

What are the important skills to learn?

How to fill up job vacancies?

GAP

What is the current skill gap?

How big is the gap?

How to find the right talent?

The major challenge for financial companies and Fintech startups is how to bridge the digital skills gap:

- **1 in 5 financial workers is at risk of displacement.** (World Economic Forum)
- **72%** of financial services executives believed a **skills gap** exists in Fintech. (Digital Banking Report)
- Half of FSSC's member firms found it **hard to fill job vacancies in finance** due to the rapid technological transformation. (Financial Services Skills Commission)

But, there are a lot of necessary skills in Fintech...

How to prioritise them in a specific role?

A **SKILLS** FRAMEWORK

Developing a good understanding of the required skills and an effective tool to differentiate those skills are essential for candidates who want to apply for jobs in Fintech and those who wish to upskill or reskill to be relevant to the world of digital finance.

It is also critical for recruiters to identify the vital skills for their organisations.

Additionally, learning institutions, regulators and governments can benefit from aligning their training programmes to skills most in demand in the industry. This, in turn, ensures that the industry finds the right talents, which fuels its growth.

Therefore, we need a skills framework.

Our research determined that...

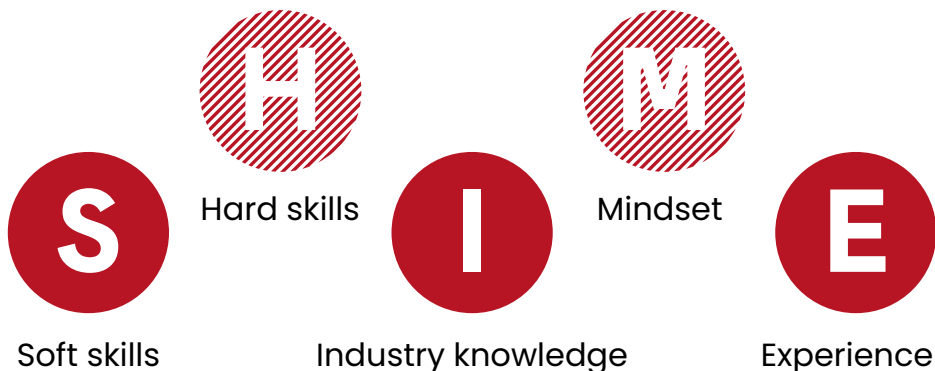
**Hard skills, Soft skills,
Mindset, Industry
knowledge and
Experience**

are needed for these roles in Fintech.






CFTE'S SHIME SKILLS FRAMEWORK




A qualitative approach to identify the required skillset in Fintech and financial services.



SHIME is about...

-  Analysing a wide range of skill sets required in Fintech
-  Assisting individuals to identify their strengths
-  Understanding the required skills for different job roles

SHIME is not ...

-  A quantitative tool
-  An end goal, but a way to start thinking about skills
-  A magical recipe, but a catalyst to reflect on skills

SHIME is job dependant

For example, an engineer in Fintech may need strong programming skills, while a product manager must demonstrate cross-functional collaboration and negotiation abilities.

A good understanding of the required skills is important for the candidates who want to apply, but also those who want to upskill or reskill to be relevant for a world of digital finance.

Now, let's dive in each skill in more detail

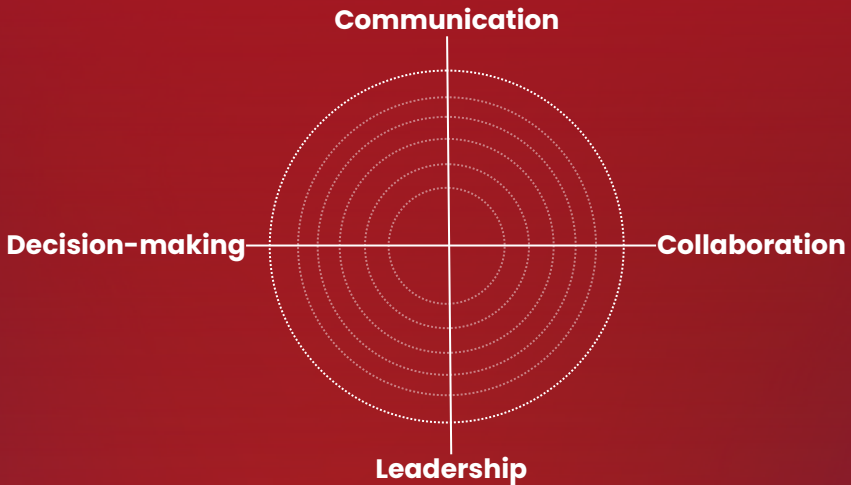


SOFT SKILLS

SOFT SKILLS REPRESENT THE CHARACTER TRAITS OF AN INDIVIDUAL

These are human qualities that relate to a candidate's interactions with colleagues, customers and overall management of work. While the general perception is that hard skills are important, **soft skills influence the success and progression of a career** in Fintech. They are the kind of abilities that, so far, artificial intelligence cannot be able to mimic in the environment.

An individual's proactivity determines their application of these soft skills and overall value addition to the team and company they work in.



Example of soft skills

Analytical

Logical reasoning

Delegation

Presentation skills

Social Intelligence

Empathy

Coordination

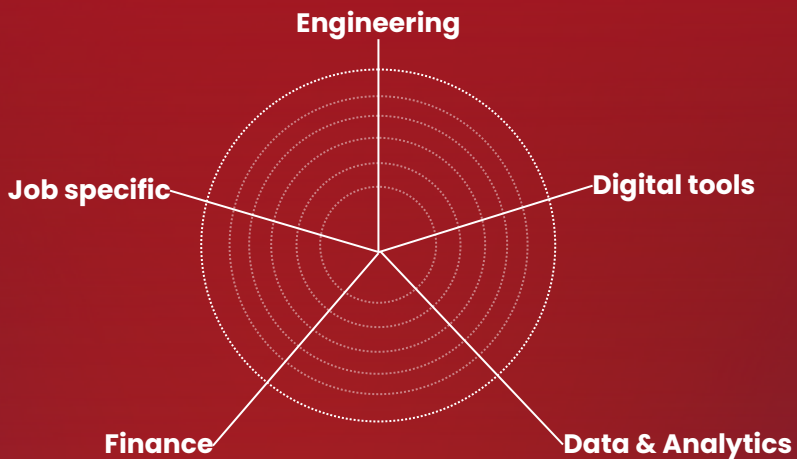
Teamwork

HARD SKILLS

HARD SKILLS ARE CAPABILITIES THAT CAN BE QUANTIFIED.

Hard skills can be examined and assessed through an exam or project such as a programming language, e.g. Python or open banking regulations. Most emphasis is placed on acquiring and showing know-how in hard skills.

Hard skills tends to be very specific depending on the jobs. The hard skills of a data scientist will be very different than a product manager. This is why there are some hard skills that are useful for all roles (digital tools, finance) but some that are job specific.



Example of hard skills

Design software

Prototyping

Accounting

Design software

Business Development

Coding

Data visualisation

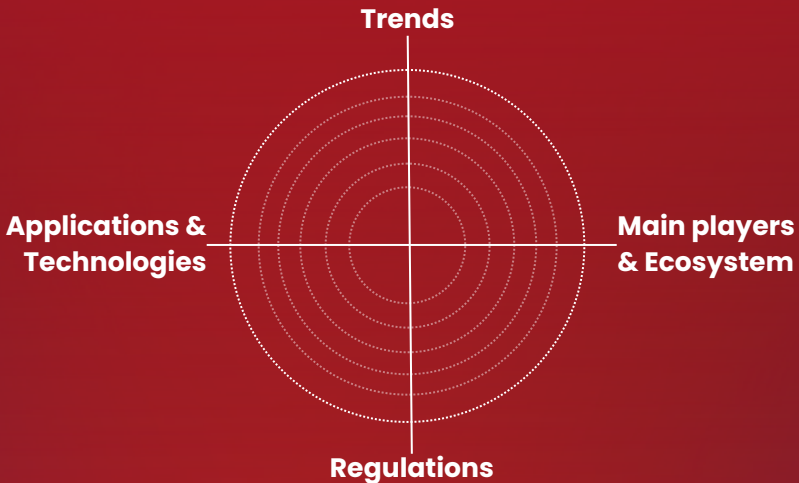
Research

INDUSTRY KNOWLEDGE

INDUSTRY KNOWLEDGE IS FINTECH KNOWLEDGE FROM GENERAL TO SECTORS.

Industry knowledge is required more for people with less technical skills, citing the need for those interested in Fintech to understand and clarify the nuances of the sector they wish to join as a start. The nuances in the Fintech industry require specific knowledge of the Fintech ecosystem, relevant financial regulation, and technical application know-how.

Individuals can acquire industry knowledge by networking, researching, and reading to get relevant and timely information for the sector.



Example of industry knowledge

Metaverse

Cryptocurrencies

Blockchain

Digital Payments

Anti-Money Laundering

Open Banking

AI

Banking Regulations

MINDSET

MINDSETS ARE ESTABLISHED SETS OF ATTITUDES.

Mindset is a way of thinking reflected in one's behaviour, such as adaptability or resilience. Fintech has grown exponentially from startups to large organisations, and **thinking like an entrepreneur** is the best way to summarise the mindset of Fintech.

Mindsets allow individuals to innovate, upskill/reskill and grow in the Fintech industry. Mindsets do not vary much on specific roles. Having a learner mindset and adaptability are crucial to anyone working in the industry.



Example of mindset

Proactive

Open-mindedness

Customer Oriented

Resilient

Problem Solver

Creativity

Continuous Learning

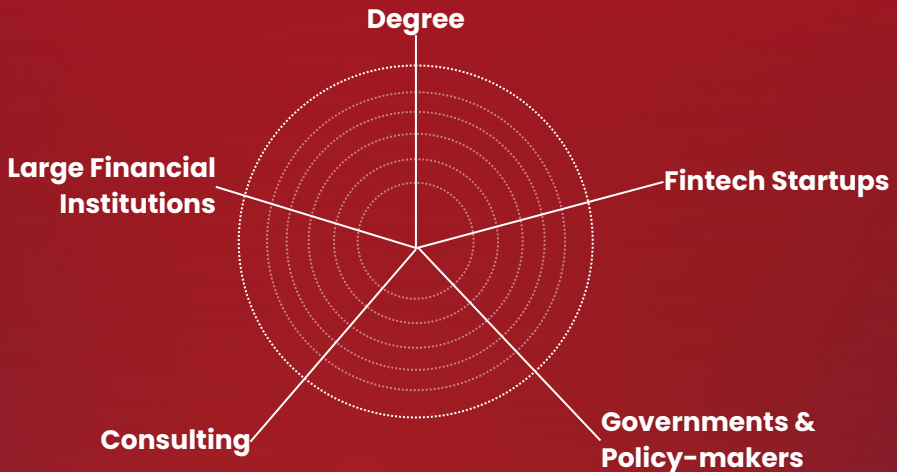
Curiosity

EXPERIENCE

EXPERIENCE IS KNOWLEDGE OR SKILLS DEVELOPED IN JOBS OR ACTIVITIES.

Experience is essential for Fintech. Entry-level jobs and internships are rare in Fintech, consequently making work duration and accreditations account for experience in Fintech.

Accreditations accepted in Fintech vary from degrees in computer science for engineering to certified anti-money laundering specialist (CAMS) certificates for compliance officers. Additionally, interest in Fintech in general, a specific sector or the company you are interested in working in, is highly advantageous in getting roles here.



Example of experiences

MASTER

PROFESSIONAL

FOUNDERS OR CEO

MANAGING DIRECTOR

BACHELOR

ASSOCIATE

PHD

Show your *Expertise!*

At Singapore Fintech Festival, we are interviewing dozens of experts to build **the ideal Fintech profiles** in product management, engineering, compliance, business development, partnerships, etc.

If you are an experienced leader, recruiter, and individual working in Fintech.

For those who want to take part in the research, scan this QR code



Alternatively, email us at sff@cfte.education

We look forward to receiving your valuable answers!

Test your skills with our skills assessment

And build your SHIME profile



THE INVISIBLE BARRIER

Don't think only hard skills.



THREE KEY TAKEAWAYS TO BE **HIGHLIGHTED!**

1

Hard skills are important, but not sufficient.

Hard skills such as programming or data analysis might be the first things that come to mind when thinking about Fintech. However, mindset, soft skills and industry knowledge are equally crucial for Fintech companies but are usually overlooked by applicants.

2

Mindset, Soft Skills and Industry Knowledge, are equally crucial for Fintech companies but are usually overlooked by applicants.

3

Interestingly, **transferable skills to get into Fintech are more “Tech” than “Fin”.**

Although understanding finance is helpful in Fintech, this is not the main requirement for Fintech companies. Digital skills, Fintech understanding and an entrepreneur mindset are more sought-after skills by recruiters.



IN A TECH WORLD, LET'S BET ON PEOPLE!

People are at the core of everything we do (and that we'll ever do).



SO LET'S BE:

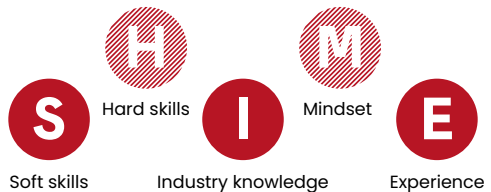
- ✓ Resilient
- ✓ Innovate
- ✓ Digitally-ready

Read the book!



Fintech Job Report

Use SHIME!



 cfte.education

CONCLUSION

SHAPING THE FUTURE OF FINANCE

The future of the financial industry combines high-growth, innovation, career progression and high salaries. Many opportunities lie ahead of us; therefore, knowledge and skills are more critical than ever in this digital transformation period.

- An individual with the right skills can find a job
- A company with the right talent can fuel its growth.
- A nation with a skilled workforce is resilient.



For **Individuals**, a better understanding of the industry and the job landscape of Fintech would help those in need of upskilling or reskilling to properly focus their efforts on what is required for their desired position.



For **companies**, the Fintech jobs taxonomy and the SHIME framework can make the recruitment process more efficient and solve the mismatch issue in Fintech.



Governments, regulators and policy-makers can benefit from aligning their training programmes to skills most in demand in the industry. This, in turn, ensures that the industry finds the right talents, which fuels its growth.

Focusing on building talent is critical.

**What's your strategy for
the next 10 years?**

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Tech is eating finance