

INDUSTRIAL SKILLS FRAMEWORK (IndSF)

FINTECH



IN DEMAND JOBS FOR FINTECH

Fintech Specific Roles

**Fintech Product
Developer**

**Blockchain
Developer**

**Quantitative & Data
Analyst**

**RegTech
Specialist**

Others

Solution Architect

Web Developer

DevOps Engineer

Mobile Developer

Front End Engineer

Back End Engineer

UX Designer

UI Designer

*Information available in
IndSF Software and Application*

Cyber Risk Analyst

**Digital Forensic
Specialist**

*Information available in
IndSF Cybersecurity*

Data Analyst

Data Scientist

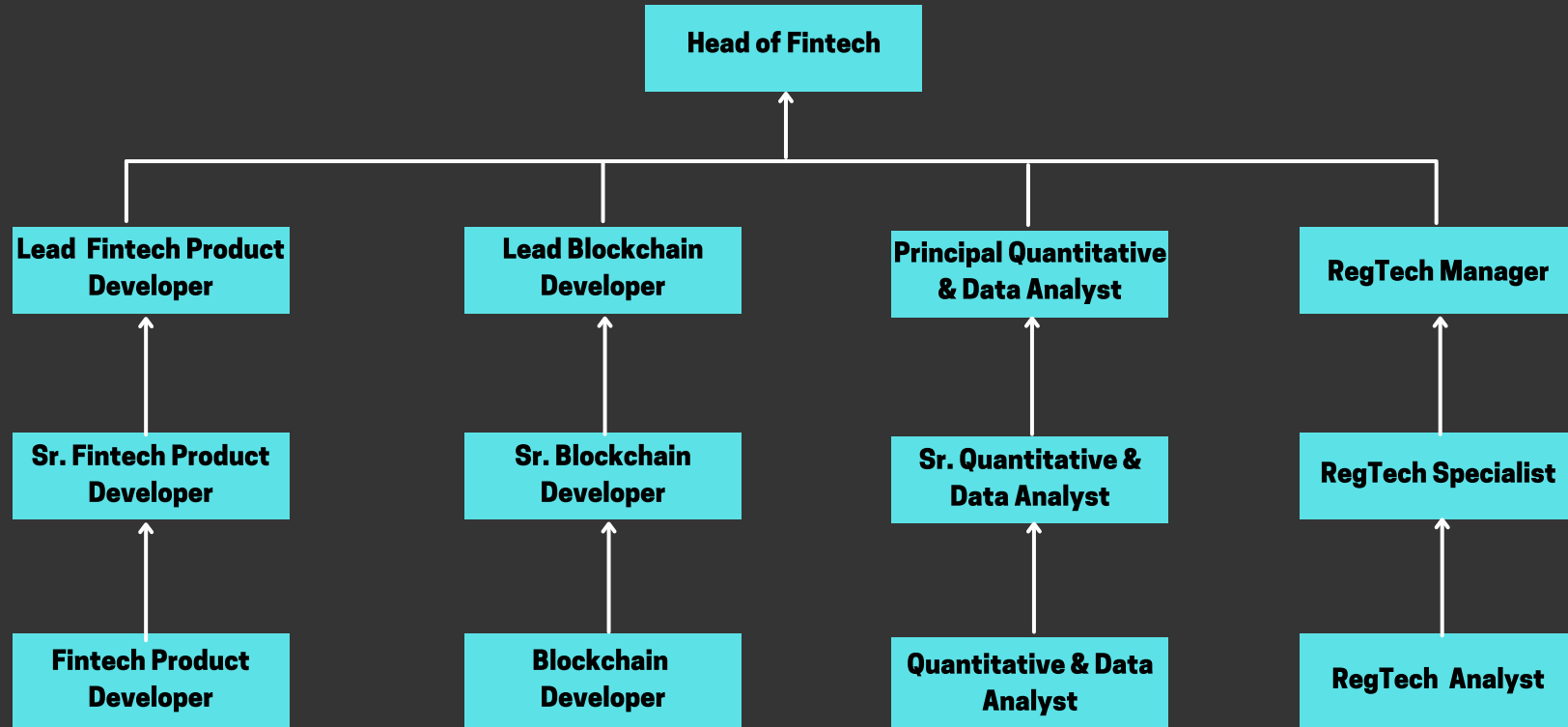
*Information available in
IndSF Data Science*



Scan here to download the full IndSF document



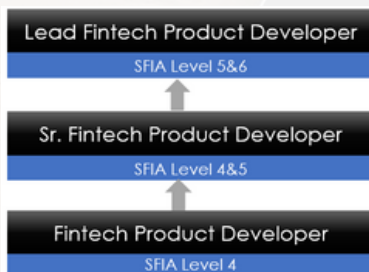
CAREER PATHWAYS - FINTECH SPECIFIC ROLES



FINTECH PRODUCT DEVELOPER



CAREER PATHWAYS



Skills Framework for the Information Age (SFIA)

- Level 7 - Set strategy, inspire, mobilise
- Level 6 - Initiate/influence
- Level 5 - Ensure/advise
- Level 4 - Enable
- Level 3 - Apply
- Level 2 - Assist
- Level 1 - Follow

COMMON CERTIFICATIONS

- App Development Courses - edX
- Associate Developer (Google)
- MCSD: App Builder (Microsoft)
- Agile Project Management Foundation Certification
- Learning Blockchain Development with EOS and C++-
- IBM Certified Mobile Application Developer
- IASA Associate Certified Solution Architecture
- TOGAF 9.2 Certification

JOB DESCRIPTION

Fintech Product Developers apply new technologies to provide solutions that meet the demands of consumers by:

- Creating and improving products that fill a niche in the Fintech industry.
- Identifying opportunities and introducing competitive products to the market and while improving existing products.
- Performing cost-benefit analysis and devising product positioning strategies for optimum penetration.
- Leveraging in beta testing, data analytics, and user research to identify and experiment ways to improve performance.
- Discovering product strategy inclusive of go-to-market plans, positioning, and messaging.
- Conducting customer research, performance metrics and cases to build consensus.
- Understanding the technological infrastructure services, business model and regulations relating to the financial services industry.

COMPETENCIES

- Experience in working with Product Design and User Experience
- A good understanding of the fintech and financial services space
- Working knowledge in various technologies, including blockchain, AI, IoT, Cloud and DevOps
- Extensive familiarity with prototyping processes and best practices using a variety of rapid prototyping tools and software such as Figma and Webflow
- Proficiency in one or more of the following Object Oriented languages: TypeScript/JavaScript, C++, Go-Lang, Java, Rust
- Good organisational and project-management skills.
- Strong relationship-building skills.
- Good knowledge and appreciation of regulatory, cybersecurity and compliance restrictions

COMMON TOOLS

- Java
- Python
- Deep Learning
- JavaScript
- SQL
- Figma
- User Flows
- Wireframing
- A/B Testing
- Mockup
- C#
- C++

ESSENTIAL SKILLS (TECH)

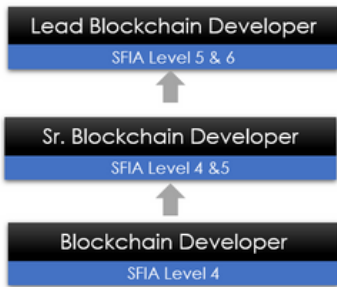
- Data Design and Strategy
- Solution Architecture
- Data Visualisation
- Programming C, C++, Java
- Database Management
- Emerging Technology Synthesis
- User Interface Design
- User Experience Design
- Qualitative and Quantitative Economic Analysis
- Stress Testing
- Risk Culture, Risk Appetite, Risk Data

SOFT SKILLS

- Mathematical aptitude
- Problem solving
- Time management
- Organization & planning
- Critical thinking
- Accuracy and attention to detail
- Understand the latest trends & their role in a commercial environment
- Communication & teamwork
- Design thinking
- Effective conflict management & negotiation skills
- Stakeholder management
- Creativity
- Self-development (up to date with fast-changing trends)

BLOCKCHAIN DEVELOPER

CAREER PATHWAYS



Skills Framework for the Information Age (SFIA)

- Level 7 - Set strategy, inspire, mobilise
- Level 6 - Initiate/influence
- Level 5 - Ensure/advise
- Level 4 - Enable
- Level 3 - Apply
- Level 2 - Assist
- Level 1 - Follow

COMMON CERTIFICATIONS

- Blockchain Certifications from Blockchain Council
- Certified Hyperledger Expert
- Blockchain Certification for Enterprise Specialisation by INSEAD
- Blockchain Technology EdX
- Blockchain: Principles and Practices Pluralsight
- Microsoft Certified Azure Data Engineer Associate

JOB DESCRIPTION

Blockchain Developers enable secure digital transactions by:

- Creating systems to record and store blockchain data in a way that prevents changes or hacks.
- Designing secure blockchain technologies, developing application features and interfaces, and maintaining client and server-side applications.
- Managing full life cycles of blockchain applications, from research and analysis to design and execution.
- Utilising various programming languages to create interfaces, features, and architecture for different purposes, such as payment processing.
- Building infrastructure and setting up security measures to protect against cyber attacks.
- Collaborating with engineers or other information technology personnel in other offices or teams during the design process.
- Examining data in ledgers for Blockchain effectiveness.
- Creating security architecture for blockchain and related applications.

COMPETENCIES

- A good understanding of the fintech and financial services space, blockchain/DLT and related regulatory compliance
- Extensive experience in back-end development, algorithms, and data structures
- Knowledge of cryptography and blockchain protocols
- In-depth knowledge of best practices in blockchain management
- Advanced analytical and problem-solving skills
- Excellent communication and collaboration abilities
- Advanced proficiency in programming languages, such as C++, Java, and Python
- Architect & design community and ecosystem around blockchain platform
- Experience in designing an end-to-end blockchain community and ecosystem

COMMON TOOLS

- Kubernetes
- C++
- C
- JavaScript
- Java
- Ethereum
- Node.js
- Python
- SQL
- Rust
- Tendermint
- Solidity
- Cryptocurrency
- Fullstacks Development
- REST APIs

ESSENTIAL SKILLS (TECH)

- Hyperledger Fabric
- Data Design and Strategy
- Solidity (Ethereum)
- Computational Modelling
- Solution Architecture
- Data Visualisation
- Programming C,C++, Java
- Data Analysis
- System Integration
- Database Management
- Business Intelligence (BI)
- Emerging Technology Synthesis
- Network Security
- Firewalls
- Proficiency in Cloud Computing
- UI/UX Design
- Understanding blockchain protocols i.e. VMware, Corda
- Stress Testing
- Portfolio Management
- Capital Management
- Risk (Culture, Appetite, Data)
- Data centres
- Strong knowledge of Bitcoin, Ethereum Tendermint, EVM
- Cryptography (symmetric/asymmetric, hash, signatures)
- Consensus mechanism (POW, POS, POA, etc) & P2P network
- Linux OS and Linux commands

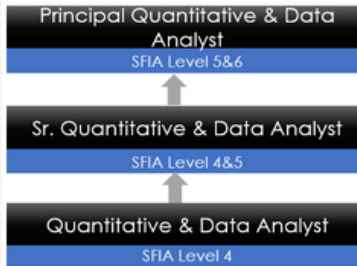
SOFT SKILLS

- Mathematical aptitude
- Problem solving
- Organization & planning
- Critical thinking
- Accuracy and attention to detail
- Understand the latest trends & their role in a commercial environment
- Communication & teamwork
- Design thinking
- Effective data story telling
- Good reporting skills
- Stakeholder management



QUANTITATIVE AND DATA ANALYST

CAREER PATHWAYS



Skills Framework for the Information Age (SFIA)

- Level 7 - Set strategy, inspire, mobilise
- Level 6 - Initiate/influence
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COMMON CERTIFICATIONS

- Microsoft Certified Data Management and Analytics
- SAS Certified Advanced Analytics Professional
- Oracle Business Intelligence Certification
- Certified Analytics Professional (CAP)
- Data Visualization with Tableau
- Data Visualization & Dashboarding with R
- IBM Data Science Professional Certificate.
- Amazon AWS Certified Big Data.
- SAS Certified Advanced Analytics Professional.
- Bachelor Degree equivalent in Management Information Systems or Engineering degree.

JOB DESCRIPTION

Quantitative and Data Analysts apply mathematical and statistical methods to financial and risk management problems by:

- Developing and implementing complex models to make financial and business decisions.
- Developing real time analytics application in enhancing business value propositions.
- Performing analysis of historical and experiment data, communicating results, and driving decisions.
- Creating dashboard for business and product trends monitoring.
- Applying data insights to develop frameworks, tools, and best practices.
- Reporting of performance metrics and developing data personas.
- Managing full datasets through its lifecycle from the data collection until data usage.

COMPETENCIES

- A good understanding of the fintech, financial services space, and relevant personal data act and regulation
- Knowledge of hypothesis forming and testing
- Good at data visualisation and dashboarding tool (Tableau/Metabase etc.)
- Able to explain insights with clear and compelling written, verbal and visual communication
- Ability to write code to read data, access packages and able to apply logic
- Debugging, profiling and optimisation
- Ability to clean data through statistical approaches, such as identifying outliers
- Ability to transform data into machine-readable formats
- Knowledge of big data tools and platforms to access data and run models
- Identify, monitor, and measure quality of models over time

COMMON TOOLS

- MongoDB
- HBase
- Java
- Hive
- Node.js
- Python
- SQL
- R
- Tableau
- React.js
- TensorFlow
- NumPy
- Machine Learning & AI
- Cloud Technologies (eg. MS Azure, AWS, Google Cloud)

ESSENTIAL SKILLS (TECH)

- Data Visualisation
- Data Design and Strategy
- Python
- Data Analysis
- SQL
- MATLAB
- Qualitative and Quantitative Economic Analysis
- Data Analytics
- Artificial Intelligence (AI)
- Data Science
- Statistical Testing
- Regression Analysis
- Distributions
- Machine Learning
- Risk Culture, Risk Appetite, Risk Data

SOFT SKILLS

- Mathematical aptitude
- Problem solving
- Time management
- Organization & planning
- Critical thinking
- Accuracy and attention to detail
- Understand the latest trends & their role in a commercial environment
- Excellent in communication
- Effective conflict management & negotiation skills
- Stakeholder management
- Creativity



REGTECH SPECIALIST



CAREER PATHWAYS



Skills Framework for the Information Age (SFIA)

- Level 7 - Set strategy, inspire, mobilise
- Level 6 - Initiate/influence
- Level 5 - Ensure/advise
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- Level 3 - Apply
- Level 2 - Assist
- Level 1 - Follow

COMMON CERTIFICATIONS

- ICA Specialist Certificate in Financial Crime Risk and New Technology
- Cryptocurrency Tracing Certified Examiner (CTCE)
- Crypto Compliance Training and Certification
- Chainalysis Cryptocurrency Fundamentals Certification (CCFC)
- Capital Market Service License (CMSRL) by Securities Commission Malaysia

JOB DESCRIPTION

RegTech Specialists identify what and how to use the regtech automation tools to ensure the product fits the regulatory and compliance set by relevant authorities through:

- Understanding of the regulatory and compliance requirements for financial products.
- Monitoring and identification of risk surveillance, statutory reporting to the various governing bodies, as well as governance for internal and external audit.
- Managing risk inventory on the key risks such as-Operational Risk, Compliance Risk, Regulatory Risk, Culture Risk, IT Risk and Reputational Risk.
- Analysis of compliance breaches identified by transaction monitoring team.
- Liaison with Data Analyst for data and reporting.
- Coordination with other technology teams for system integration.

COMPETENCIES

- A good understanding of the fintech and financial services space, blockchain/DLT, and related regulatory compliance
- Extensive experience in back-end development, algorithms, and data structures
- Advanced analytical and problem-solving skills
- Experience in designing, implementing, and reviewing systems, processes and control
- IT literate with robust knowledge of systems relating to cyber security, complaint, and incident management
- Ability to interpret statutory and regulatory requirements and establish frameworks and solutions for implementation
- Experience with technology platforms in the payments/financial industry
- Proven use of modelling tools, including data flow diagrams and relationship data models

COMMON TOOLS

- eKYC
- CDD
- Qlik
- MicroStrategy,
- JIRA
- Confluence
- SQL
- Advance Excel
- Merkle Science
- Lexis Nexis Bridger
- Rust
- Tendermint
- REST APIs
- CipherTrace,
- Chainalysis,
- Elliptic
- Refinitiv World Check
- Dow Jones
- Thompson Reuters

ESSENTIAL SKILLS (TECH)

- Product-market fit analysis
- Solution architecture: understanding compliance tools to help design solutions that work
- Regulatory obligation analysis
- Data analytics
- Laws, regulations and standards (especially for financial services in Malaysia)
- Ethical business behavior
- Risk management
- Governance
- External and internal audits
- Stress Testing
- Risk (Culture, Appetite, Data)
- Data centres
- Popular consensus mechanism (POW, POS, POA, etc) & P2P network.
- Linux OS and Linux commands

SOFT SKILLS

- Mathematical aptitude
- Problem solving
- Organization & planning
- Critical thinking
- Accuracy and attention to detail
- Understand the latest trends & their role in a commercial environment
- Communication & teamwork
- Design thinking
- Good reporting skills
- Stakeholder management

ABBREVIATION TABLE

Abbreviation	Meaning	Page
<ul style="list-style-type: none">• RegTech• UI• UX• DLT	<ul style="list-style-type: none">• Regulation Technologist• User Interface• User Experience• Distributed Ledger Technology	<ul style="list-style-type: none">• 2,3,7• 2• 2• 7

Published by,

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