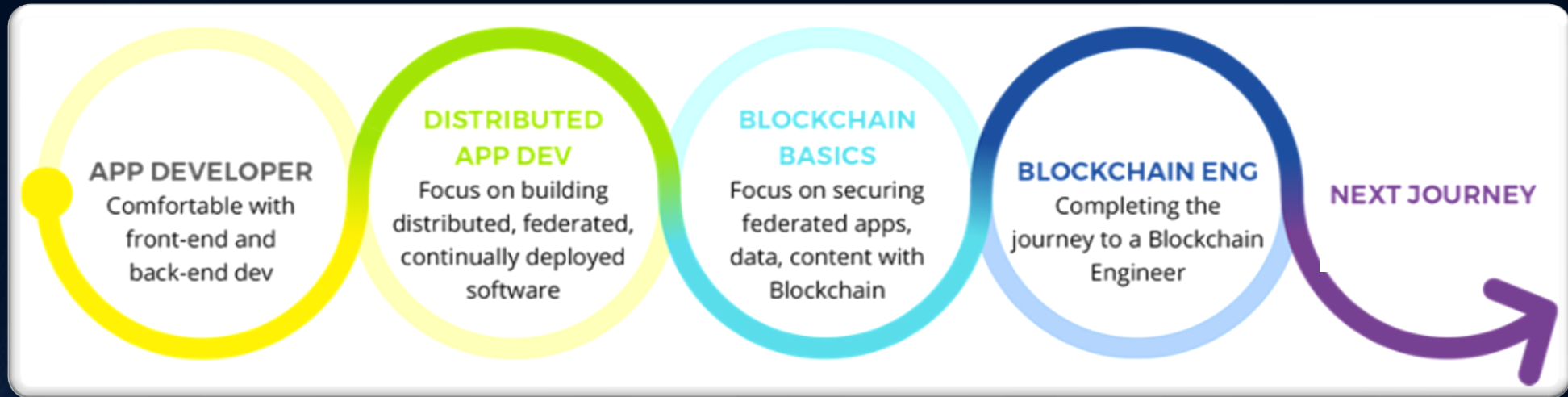


# Application Developer to Blockchain Engineer

A CAREER-MAPPED LEARNING JOURNEY

# Application Developer To Blockchain Engineer

Blockchain allows you to differentiate your organization from the competition with secure distribution for supply chain management, medical records, manufacturing, retail, and more. As such, Blockchain Solutions Architects are vital to companies that transact with the outside world. Explore the different stages required to become a Blockchain Solutions Architect.



This Learning Journey includes:

- More than 52 hours of learning
- 4 Final Exam Assessments
- Online Mentoring
- 365 days of access

# Track 1: Application Developer

In this track, we will focus on the application developer role, we will focus on the foundation skills a developer needs to master before they embark on the journey to mastering blockchain.

## Focus areas:

- ✓ Deploying Software
- ✓ Securing Software
- ✓ Working with Data Sources
- ✓ System integration
- ✓ Continuous Testing
- ✓ Use of Frameworks & APIs

## Courses in this Track:

- Blockchains & Ethereum: Introduction
- Blockchains & Ethereum: Performing Transactions in Ethereum
- Blockchains & Ethereum: Mining and Smart Contracts in Ethereum
- Working with Ethereum: Storing Data
- Working with Ethereum: Smart Contract Development
- Working with Ethereum: Metamask & the Ethereum Wallet
- Working with Ethereum: The Geth Client
- Working with Ethereum: Lifecycle of a Smart Contract
- Working with Ethereum: Tools for Smart Contract Development

**Final Exam: Blockchain Application Developer**



# Track 2: Distributed Application Developer

In this track, we will focus on the distributed application developer role, we will focus on the key skills around distributed application development that you need for block chain development.

## Focus areas:

- ✓ Federated Architectures
- ✓ Continual Deploy/Test
- ✓ Cryptography Basics
- ✓ Digital Signatures
- ✓ Cryptographic Hashing
- ✓ Velocity of Tokens

## Courses in this Track:

- Ethereum Smart Contracts with Solidity: An Overview of Ethereum and Solidity
- Ethereum Smart Contracts with Solidity: Features of the Solidity Language
- Ethereum Smart Contracts with Solidity: The Remix Solidity IDE
- Ethereum Smart Contracts with Solidity: Functions in Solidity
- Ethereum Smart Contracts with Solidity: Ether Transfer Operations in Solidity
- Ethereum Smart Contracts with Solidity: Data & Control Structures in Solidity
- Ethereum Smart Contracts with Solidity: Build Decentralized Apps
- Smart Contracts & Hyperledger Fabric: Foundations of Hyperledger Fabric
- Smart Contracts & Hyperledger Fabric: Setting Up a Hyperledger Fabric Network
- Smart Contracts & Hyperledger Fabric: Working with Fabric Chaincode in Golang
- Smart Contracts & Hyperledger Fabric: Working with Fabric Chaincode in NodeJS
- Smart Contracts & Hyperledger Fabric: Hyperledger Fabric Web App
- Smart Contracts & Hyperledger Fabric: Hyperledger Composer Playground
- Smart Contracts & Hyperledger Fabric: Web Apps for Hyperledger Composer Networks

Final Exam: Smart Contracts Programmer

# Track 3: Blockchain Engineer

In this track, we will introduce you to the technology and tools required to get started with blockchain development.

## Focus areas:

- ✓ Validating the Chain
- ✓ Cryptocurrencies
- ✓ Smart Contracts
- ✓ Deterministic Architectures
- ✓ Securing Transactions
- ✓ Deploying Chaincode

## Courses in this Track:

- Truffle Suite: Introduction
- Truffle Suite: BlockBuilding Private Blockchain Networks with Ganache
- Truffle Suite: Automating Development with the Truffle Framework
- Truffle Suite: Using Drizzle to Build Decentralized Apps
- Blockchain & Hyperledger Fabric: An Overview of Blockchain Technology
- Blockchain & Hyperledger Fabric: An Overview of Hyperledger
- Blockchain & Hyperledger Fabric: The Hyperledger Fabric

**Final Exam: Blockchain Engineer**

# Track 4: Blockchain Engineer

This is the last step in our Blockchain journey, we will help you master best practices and design patterns.

## Focus areas:

- ✓ Blockchain Oracles
- ✓ Resource Management
- ✓ Deterministic Transactions
- ✓ Federated Architectures
- ✓ Programming Best Practices Patterns
- ✓ Interconnected Ecosystems

## Courses in this Track:

- Building Decentralized Applications for Ethereum: An Introduction to dApps
- Building Decentralized Applications for Ethereum: Building the Back End
- Building Decentralized Applications for Ethereum: Building the Front End
- Building Decentralized Applications for Ethereum: Bespoke Ethereum Tokens
- Cloud Blockchains: An Introduction to Blockchain on the Cloud
- Cloud Blockchains: Single Organization Networks on Amazon Managed Blockchain
- Cloud Blockchains: Multi-Organization Networks on Amazon Managed Blockchain
- Cloud Blockchains: Building Apps on the Azure Blockchain Workbench

## Final Exam: Blockchain Solutions Architect



# Extra Learning:

## Productivity Tools for Blockchain Solutions Architect

- ✓ Confluence: Signing in & Navigating within Spaces
- ✓ Confluence: Setting Up & Managing Spaces
- ✓ Confluence: Working with Spaces
- ✓ Confluence: Working with Team Members
- ✓ Confluence: Configuring Spaces
- ✓ Slack Web: Signing in and Setting Up
- ✓ Slack Web: Using Channels
- ✓ Slack 2016: Private Messaging & Communication Tools
- ✓ Slack 2016: Creating, Finding, & Sharing Information
- ✓ Slack 2016: Configuring Slack
- ✓ Slack iOS: Using the iOS App

## Business & Leadership for Blockchain Solutions Architect

- ✓ Being an Effective Team Member
- ✓ Getting to the Root of a Problem
- ✓ Encouraging Team Communication and Collaboration
- ✓ Reaching Sound Conclusions
- ✓ Leading a Cross-functional Team
- ✓ Strategies for Managing Technical Teams
- ✓ Knowing When to Take Strategic Risks