BLKN 218 Blockchain Anatomy, Nodes, & Networks

MICROCREDENTIAL AWARDED TO

Austin Karianjahi

Specific Learning Objectives:

Define blockchain and its key components, including nodes, networks, and transactions. Explain the role of consensus algorithms in maintaining the integrity of the blockchain. Differentiate between public, private, and consortium blockchains. Describe the process of transaction validation and its importance in maintaining a secure and transparent blockchain. Understand the concept of mining and its role in securing the blockchain network. Analyze the incentives for miners and their impact on network security and stability. Evaluate the scalability challenges faced by blockchain networks and potential solutions. Assess the environmental impact of blockchain mining operations and discuss possible sustainable alternatives. Identify potential use cases of blockchain technology across various industries. Compare and contrast popular blockchain platforms, such as Ethereum, Bitcoin, and Hyperledger. Describe the role of smart contracts in the blockchain ecosystem and their potential applications. Discuss the implications of blockchain technology on privacy, security, and regulatory compliance. Analyze the potential risks and challenges associated with implementing blockchain technology in a given context. Develop strategies for staying informed on the latest developments and trends in the blockchain space.

In partial fulfillment of the requirements for the nanodegree of

Blockchain Studies (CSC - BSTUD)

(4.5 Clock Hours) (80% Passing Score)

22 Feb 2024

Verification ID: **65d71cf5a6c0535341071f58**

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