# BLKN 490C SPECIAL TOPIC: Private & Public Keys and Digital Signatures

**MICROCREDENTIAL AWARDED TO**

# Musonda Mwansa

Specific Learning Objectives:
Identify and describe the principles of asymmetric cryptography (Knowledge). Generate secure private and public key pairs for various applications (Application). Evaluate the security and integrity of cryptographic keys (Evaluation). Understand the concept and importance of digital signatures in data integrity (Comprehension). Generate and verify digital signatures for secure communications (Application). Compare and contrast various digital signature algorithms (Analysis). Understand the role of asymmetric key pairs in blockchain technology (Comprehension). Analyze the security and scalability of blockchain systems (Analysis). Evaluate the effectiveness of digital wallets in managing digital identities (Evaluation). Understand the principles of symmetric key encryption (Comprehension). Compare and contrast various symmetric encryption algorithms (Analysis). Evaluate the challenges and solutions related to secure key exchange in symmetric cryptography (Evaluation).

**In partial fulfillment of the requirements for the nanodegree of**

Blockchain Studies (CSC - BSTUD)

(4.5 Clock Hours) (80% Passing Score)

14 Oct 2024

**Verification ID:** **670cf53198050660ac009f45**

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