

Ronghua Xu, Applied Computing

ronghuax@mtu.edu

My Background:

- ❖ Ph.D., Electrical and Computer Engineering, Binghamton University, 2023
- ❖ MS, Computer Engineering, Binghamton University, 2018
- ❖ MS, Mechanical and Electrical Engineering, NUAU (China), 2010
- ❖ BS, Mechanical Engineering, NJUST (China), 2007
- ❖ Software Development and System Integration, Siemens (China), 2010-2016



Areas of Research/Expertise:

- *Blockchain and Distributed Ledger Technology*
 - ✓ Consensus protocol and incentive mechanism for Internet of Things (IoTs)
 - ✓ Scalability and interoperability of heterogeneous Blockchain systems
 - ✓ Blockchain and Smart Contract enabled security frameworks for IoT applications
- *Intelligence, Assurance and Resilience of Next Generation Network (NGN)*
 - ✓ Network Slicing (NS) based on Software Defined Network (SDN) and Virtualization
 - ✓ Machine Learning (ML) methods for dynamic resource orchestration



Michigan Tech

87

Ronghua Xu, Applied Computing,

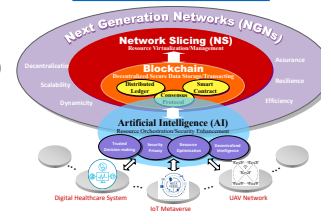
ronghuax@mtu.edu

I can contribute to:

- ❑ *Coursework development and delivery in*
 - Guide to digital forensic and investigation
 - Blockchain applications in smart IoT system
- ❑ *Integration of intelligent network infrastructure in different areas including but not limited to*
 - Health care (biometrics and digital healthcare systems)
 - Urban Air Mobility (connected drones and information fusion)
 - Digital Twin and Metaverse
- ❑ *Research collaboration on quantum-safe NGN*
 - Post-quantum cryptography (e.g., Quantum key distribution (QKD))
 - Quantum resistant consensus protocol, smart contract and distributed ledger
 - Quantum security schemes in NGNs



<https://samuelxu999.github.io>



Michigan Tech

88