Blockchain is a decentralized, distributed and digital ledger, which is used for the purpose of recording transactions across many intelligent nodes. Blockchain platform intrinsically guarantees that the record cannot be altered retroactively unless a significant number of intelligent nodes decide to defect.

Blockchain brings the distributed ledgers to every aspect of modern database system, coupled with new innovations like smart contracts. A smart contract enables automatic execution of cross-country, cross-industry and cross-organization transactions, bounded by pre-defined execution constraints. For example, if you are meeting the conditions of a high-scoring student, your scholarship payout to the bank will happen automatically!

At NTU, we developed custom Blockchain platform for industrial collaborators, including, insurance and e-logistics firms. For e-logistics partners, the particular challenge is to maintain the cross-country, cross-industry and cross-organization decentralized database without infringing on the privacy and anonymity regulations. The outcome of this project aims to enhanced stakeholders’ ability in the logistics sector to perform track-and-trace of goods in a timely and efficient manner.