

Patent name	Patent title	Patent's Huawei ID	Patent's CNIPA public reference	Patent's USA public reference number	Patent's co-authors (all the first authors are Prof. Heming Cui's HKU PhD students)			
Uranus	An Efficient, Secure Big-data Processing and Programming System based on Trusted Execution Environment	86527835	CN 202010366539.4	86527835US04	Jianyu Jiang, Xusheng Chen, Cheng Wang, Heming Cui, Sen Wang, Peng Wang, and Gong Zhang			
Cronus	CRONUS: Fault-isolated, Secure and High-performance Heterogeneous Computing for Trusted Execution Environment	92013765	CN 202210138879		Jianyu Jiang, Heming Cui, Sen Wang, Li Chen, and Gong Zhang			
GolfDB	GOLFDB: Achieving Secure and High-performance OLAP via GPU-accelerated Homomorphic Caching	92071394	TBD		Qi Hu, Wei Chen, Heming Cui, Sen Wang, Gong Zhang			
ECStore	ECStore: Achieving Efficient and Compressible Indexing on Encrypted Databases	92053093	CN 202410650032.X		Tianxiang Shen, Qi Hu, Heming Cui, Jianyu Jiang, Sen Wang, Gong Zhang			
Soter	Soter: Guarding Black-box Inference for General Neural Networks at the Edge	92013413	TBD		Tianxiang Shen, Xusheng Chen, Heming Cui, Sen Wang, Li Chen, Gong Zhang			
Bidl	BIDL: A High-throughput, Low-latency Permissioned Blockchain Framework for Datacenter Networks	87163710	CN 202111080651.2		Ji Qi, Xusheng Chen, Yunpeng Jiang, Heming Cui, Sen Wang, Peng Wang, and Gong Zhang			
Upa	An Automated, Accurate and Efficient Differentially Private Big-data Mining System	86774788	CN 202010506698.X	86774788US04	Tsz On Li, Jianyu Jiang, Ji Qi, Chi Chiu So, Heming Cui, Sen Wang, Peng Wang, Gong Zhang			
Daenet	A decentralized, secure and reliable network communication system via SGX	87138572	CN 202110048599.6		Tianxiang Shen, Jianyu Jiang, Yunpeng Jiang, Ji Qi, Xusheng Chen, Shixiong Zhao, Heming Cui, Sen Wang, Peng Wang, and Gong Zhang			
Eges	An Efficient, DoS Resistant Consensus Protocol for Permissioned Blockchains	87190862	CN 202010247629.1		Xusheng Chen, Shixiong Zhao, Jianyu Jiang, Heming Cui, Sen Wang, Peng Wang, and Gong Zhang			
Slarm	Slarm: SLA-aware, Reliable and Efficient Transaction Dissemination for Permissioned Blockchains	92057642	CN 202411227529.7		Ji Qi, Tianxiang Shen, Heming Cui, Jianyu Jiang, Sen Wang, Gong Zhang			
Fold3D	Fold3D: High-performance 3D Parallel DNN Training via Parallelizing Computation and Communication Tasks	92013762	CN 202310158460.6		Fanxin Li, Shixiong Zhao, Heming Cui, Sen Wang, Li Chen, and Gong Zhang			
NASPipe	NASPipe: High Performance and Reproducible Pipeline Parallel Supernet Training via Causal Synchronous Pruning	92013415	CN 202210138879.0		Shixiong Zhao, Fanxin Li, Heming Cui, Sen Wang, Li Chen, and Gong Zhang			
Themis	Themis: Automatic and Efficient Deep Learning System Testing with Strong Fault Detection Capability	92003188	CN 202111372034.X		Tsz On Li, Dong Huang, Heming Cui, Sen Wang, Li Chen, Gong Zhang			
vPipe	A high-performance DNN training system with efficient and scalable pipelined parallelism on GPUs	87190862	92000692CN01		Shixiong Zhao, Fanxin Li, Xusheng Chen, Heming Cui, Sen Wang, Peng Wang, and Gong Zhang			
Dast	A system in achieving low tail-latency and high scalability for serializable transactions in edge computing	87163691	CN 2021101523346.3		Xusheng Chen, Haoze Song, Jianyu Jiang, Heming Cui, Sen Wang, Peng Wang, and Gong Zhang,			