

## PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT6454756

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	ALIBABA GROUP HOLDING LIMITED	08/26/2020
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	ADVANTAGEOUS NEW TECHNOLOGIES CO., LTD.	
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<b>Postal Code:</b>	KY1-9008	
<b>PROPERTY NUMBERS Total: 1</b>		
	<b>Property Type</b>	<b>Number</b>
	Application Number:	17028482
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<b>NAME OF SUBMITTER:</b>	KRYSTLE SIERSEMA	
<b>SIGNATURE:</b>	/Krystle Siersema/	
<b>DATE SIGNED:</b>	12/16/2020	
<b>Total Attachments: 14</b>		
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### Patent Assignment

This Patent Assignment (this "Assignment") with an effective date of August 24, 2020 (the "Effective Date") by Alibaba Group Holding Limited, a company duly authorized under the laws of Cayman Islands and having an address at Fourth Floor, One Capital Place, P.O. Box 847, George Town, Grand Cayman, Cayman Islands (hereinafter the "Assignor") witnesseth:

WHEREAS, Assignor is the owner of certain rights, title and interest in and to the patents and patent applications set forth on Schedule A hereto (hereinafter the "Patents and Applications");

WHEREAS, Advantageous New Technologies Co., Ltd., a company duly organized under and pursuant to the laws of Cayman Islands and having an address at Cayman Corporate Centre, 27 Hospital Road, George Town, Grand Cayman KY1-9008, Cayman Islands (hereinafter the "Assignee"), is desirous of acquiring Assignor's entire right, title and interest in and to said Patents and Applications, and in and to any Letters Patent or Patents to be obtained therefor and thereon;

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, Assignor has as of the Effective Date sold, assigned, transferred and conveyed, and does hereby sell, assign, transfer and convey, unto Assignee, all of Assignor's rights, titles and interests in and to the Patents and Applications, and any and all Letters Patent or Patents in the United States of America and all foreign countries which may be granted therefor and thereon, for its own use and behalf and the use and behalf of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted, as fully and entirely as the same would have been held and enjoyed by the Assignor, had this sale and assignment not been made. Assignor does hereby sell, assign, transfer, and convey to Assignee, its successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to Assignee, or may accrue hereafter including, but not limited to, the right to sue for, collect, and retain damages for past, present and future infringement of the said Patents and Applications before or after issuance.

IN TESTIMONY WHEREOF, this Assignment is signed by the following duly authorized signatories of the Assignor and Assignee respectively, on this 26th day of August, 2020.

Assignor  
Alibaba Group Holding Limited

Assignee  
Advantageous New Technologies Co., Ltd.

Signature:   
Name: Min Schumann Xu  
Title: Chief Patent & Technology Counsel

Signature:   
Name: J Benjamin Bai  
Title: Director

## Schedule A to Patent Assignment

Internal Docket	Country / Region	App'n No.	App'n Date	Patent Title
A11418US	US	15/928,248	2018/3/22	METHOD AND DEVICE FOR CONSTRUCTING SCORING MODEL AND EVALUATING USER CREDIT
A11431US	US	15/927,337	2018/3/21	METHOD AND APPARATUS FOR CONSENSUS VERIFICATION
A11432US	US	15/927,402	2018/3/21	METHOD AND APPARATUS FOR PROCESSING TRANSACTION REQUESTS
A11435US	US	15/933,545	2018/3/23	BLOCKCHAIN-BASED TRANSACTION PROCESSING METHOD AND APPARATUS
A11444US	US	15/935,209	2018/3/26	Method, Apparatus, and System for Blockchain Consensus
A12447US	US	16/127,583	2018/9/11	Method, Apparatus, and Electronic Device for Risk Feature Screening and Descriptive Message Generation
A12477US	US	16/034,689	2018/7/13	Method, Apparatus, and Electronic Device for Processing Consensus Requests in a Blockchain Consensus Network
A12641US	US	16/124,001	2018/9/6	Code Scanning Security Check Method and Apparatus
A12778US	US	16/139,887	2018/9/24	Data Storage Method, Data Query Method and Apparatuses
A13027US	US	16/144,278	2018/9/27	Smart Meal Ordering Method and Device
A2211US	US	14/603,278	2015/1/22	METHOD AND APPARATUS OF DISPLAYING INFORMATION
PCT2706US	US	15326908	2015/7/17	INFORMATION PUSHING METHOD, SERVER, SHARER CLIENT AND THIRD-PARTY CLIENT
PCT2871US	US	15327965	2015/7/17	METHOD AND DEVICE FOR IDENTITY AUTHENTICATION
A2978US	US	14/839,709	2015/8/28	Method and Apparatus of Obtaining Location Information
PCT3133US	US	15/505,400	2015/8/11	Service Processing Method, Apparatus and Server
PCT3267US	US	15520165	2015/10/10	Verification Method and Apparatus
PCT3277US	US	15626956	2017/6/19	Information Presentation Method and Apparatus
PCT3412US	US	15661239	2017/7/27	Method and Device for Saving Chat Record of Instant Messaging
PCT3465US	US	15529843	2015/11/27	Method and Server for Displaying Access Content
PCT3579US	US	15528727	2015/12/3	Service Processing Method and Apparatus, and Service Server
PCT3827US	US	15635642	2017/6/28	Network Resource Processing Method, Apparatus and Instant Messaging System
PCT3934US	US	15662637	2017/7/28	Connection Establishment Method and Device
PCT4089US	US	15661099	2017/7/27	Service Management Method and the Device
PCT5214US	US	15/991,784	2018/5/29	User Data Sharing Method and Device
PCT5796US	US	15/897,431	2018/2/15	AUDIO RECOGNITION METHOD AND SYSTEM
A6010US	US	15/332,663	2016/10/24	METHOD, SYSTEM, AND DEVICE FOR PROCESS TRIGGERING
PCT6403US	US	15/925,144	2018/3/19	Information Registration and Authentication Method and Device
PCT6832US	US	16/000,146	2018/6/5	Method and Apparatus for Generating Random Character String
PCT7068US	US	15/993,071	2018/5/30	METHOD AND APPARATUS FOR DISPLAYING DISPLAY OBJECT ACCORDING TO REAL-TIME INFORMATION
PCT7165US	US	15/994,746	2018/5/31	Resource Processing Method and Device
PCT7193US	US	16/005,404	2018/6/11	Method and Apparatus for Recognizing Service Request to Change Mobile Phone Number
PCT8093US	US	16/145,660	2018/9/28	Data Caching Method and Apparatus
PCT8183US	US	16/162,855	2018/10/17	ORDER PROCESSING METHOD AND DEVICE
PCT8184US	US	16/158,869	2018/10/12	Method and System for Allocating Virtual Articles
PCT8186US	US	16/152,120	2018/10/4	Target Location Search Method and Apparatus
PCT8402US	US	16/156,239	2018/10/10	Service Processing Method and Device

PCT8580US	US	16/156,762	2018/10/10	METHOD AND APPARATUS FOR PROCESSING FAILURE OF CIPHER CHANGE OF CIPHERTEXT IN DATABASE
PCT8686US	US	16/171,791	2018/10/26	METHOD AND APPARATUS FOR SETTING MOBILE DEVICE IDENTIFIER
A16345DUS	US	29/673,351	2018/12/13	PAYMENT MACHINE
PCT9400US	US	16/227,527	2018/12/20	METHOD AND DEVICE FACILITATING EXPANSION OF PRIMARY PAYMENT INSTRUMENTS
PCT9404US	US	16/195,223	2018/11/19	STREAMING DATA DISTRIBUTED PROCESSING METHOD AND DEVICE
A15839DUS	US	29/671,448	2018/11/27	PAYMENT MACHINE
PCT9405US	US	16/217,974	2018/12/12	DATA STORAGE METHOD AND DEVICE
PCT9087US	US	16/234,267	2018/12/27	METHOD AND DEVICE FOR CONTROLLING DATA RISK
A16362DUS	US	29/675,016	2018/12/28	PAYMENT MACHINE
PCT9393US	US	16/216,771	2018/12/11	METHOD AND DEVICE FOR AUDIO RECOGNITION
PCT9089US	US	16/240,498	2019/1/4	TWO-DIMENSIONAL CODE INFORMATION QUERY METHOD, SERVER, CLIENT, AND SYSTEM
PCT9093US	US	16/247,346	2019/1/14	METHOD AND DEVICE FOR PROVIDING AND OBTAINING GRAPHIC CODE INFORMATION, AND TERMINAL
A16021DUS	US	29/672,537	2018/12/6	PORTABLE Payment Machine
PCT9374US	US	16/252,138	2019/1/18	METHOD AND SYSTEM FOR RECOGNIZING LOCATION INFORMATION IN TWO-DIMENSIONAL CODE
A16689DUS	US	29/677,637	2019/1/22	PORTABLE PAYMENT MACHINE
PCT9031US	US	16/260,849	2019/1/29	DATA PROCESSING METHOD AND APPARATUS
PCT2706US C1	US	16/152,194	2018/10/4	INFORMATION PUSHING METHOD, SERVER, SHARER CLIENT AND THIRD-PARTY CLIENT
PCT9026US	US	16/266,816	2019/2/4	SERVICE DISPLAYING METHOD AND TERMINAL
PCT9369US	US	16/265,881	2019/2/1	CARD-BASED INFORMATION DISPLAYING METHOD AND APPARATUS, AND INFORMATION DISPLAYING SERVICE PROCESSING METHOD AND APPARATUS
PCT9489US	US	16/272,852	2019/2/11	AUTHENTICATION METHOD, DEVICE AND AUTHENTICATION CLIENT
PCT9503US	US	16/274,450	2019/2/13	METHOD FOR DETERMINING CHANGE IN DISTANCE, LOCATION PROMPTING METHOD AND APPARATUS AND SYSTEM THEREOF
PCT9567US	US	16/276,204	2019/2/14	METHOD AND DEVICE FOR DETECTING FUND TRANSACTION ROUTE IN ELECTRONIC PAYMENT PROCESS
A17037DUS	US	29680331	2019/2/14	INFORMATION TERMINAL FOR PAYMENT
A17036DUS	US	29680333	2019/2/14	INFORMATION TERMINAL FOR PAYMENT
PCT9749US	US	16/276,418	2019/2/14	DATA STORAGE, DATA CHECK, AND DATA LINKAGE METHOD AND APPARATUS
PCT7193US C1	US	16/206,220	2018/11/30	METHOD AND APPARATUS FOR RECOGNIZING SERVICE REQUEST TO CHANGE MOBILE PHONE NUMBER
PCT9536US	US	16/282,102	2019/2/21	USER IDENTITY VERIFICATION METHOD, APPARATUS AND SYSTEM
PCT9661US	US	16/281,331	2019/2/21	INFORMATION INPUT METHOD AND APPARATUS
PCT9408US	US	16/283,381	2019/2/22	METHOD AND DEVICE FOR DETERMINING KEY VARIABLE IN MODEL
PCT9692US	US	16/284,272	2019/2/25	DIGITAL OBJECT UNIQUE IDENTIFIER (DOI) RECOGNITION METHOD AND DEVICE
PCT9131US	US	16/284,724	2019/2/25	USER POSITIONING METHOD, INFORMATION PUSH METHOD, AND RELATED APPARATUS
PCT9040US	US	16284969	2019/2/25	INFORMATION PRESENTATION METHOD AND DEVICE
PCT8787US	US	16/285,760	2019/2/26	SEARCH INFORMATION PROCESSING METHOD AND APPARATUS
PCT9532US	US	16/286,270	2019/2/26	VERIFICATION METHOD AND DEVICE
PCT9667US	US	16/287,617	2019/2/27	RANDOM NUMBER GENERATION METHOD AND DEVICE UTILIZED IN COMPUTER SYSTEM

PCT9876US	US	16/351,904	2019/3/13	METHOD AND DEVICE FOR WRITING STORED DATA INTO STORAGE MEDIUM BASED ON FLASH MEMORY
PCT9702US	US	16/356,400	2019/3/18	INTERNET RESOURCE DISTRIBUTING METHOD AND DEVICE, AND NETWORK RED-ENVELOPE DISTRIBUTING METHOD
PCT9392US	US	16/356,506	2019/3/18	METHOD AND APPARATUS FOR REALIZING COMMUNICATION BETWEEN WEB PAGE AND NATIVE APPLICATION, AND ELECTRONIC DEVICE
PCT9705US	US	16/358,382	2019/3/19	OPERATION OBJECT PROCESSING METHOD AND APPARATUS
PCT9879US	US	16/363,365	2019/3/25	IDENTITY RECOGNITION METHOD AND DEVICE
PCT9797US	US	16/363,877	2019/3/25	INFORMATION PUSH METHOD AND DEVICE
PCT9683US	US	16/364,917	2019/3/26	METHOD AND DEVICE FOR DETERMINING AREAS OF INTEREST BASED ON GEOLOCATION DATA
PCT9132US	US	16/364,641	2019/3/26	IMAGE LOADING METHOD AND DEVICE
A14354US	US	16/372,719	2019/4/2	CREDIT CARD PAYMENT PROCESSING METHOD AND APPARATUS
A17859DUS	US	29/686,863	2019/4/8	SMART SPEAKER SET
PCT9995US	US	16/380,643	2019/4/10	METHODS AND DEVICES FOR ENCODING AND DECODING BINARY DATA
PCT17147US	US	16/342,181	2018/11/27	SYSTEM AND METHOD FOR INFORMATION PROTECTION
PCT17824US	US	16/342,513	2018/11/27	SYSTEM AND METHOD FOR IMPROVING SECURITY OF SMART CONTRACT ON BLOCKCHAIN
PCT17149US	US	16/342,605	2018/11/27	SYSTEM AND METHOD FOR INFORMATION PROTECTION
PCT17159US	US	16/342,713	2018/11/27	SYSTEM AND METHOD FOR INFORMATION PROTECTION
PCT17158US	US	16/342,817	2018/11/27	SYSTEM AND METHOD FOR INFORMATION PROTECTION
PCT17156US	US	16/342,653	2018/11/27	SYSTEM AND METHOD FOR INFORMATION PROTECTION
PCT10140US	US	16/389,105	2019/4/19	APPLICATION INTERFACE MANAGEMENT METHOD AND APPARATUS
PCT9946US	US	16/390,662	2019/4/22	METHOD AND APPARATUS FOR DISPLAYING IMAGE INFORMATION
PCT9998US	US	16/391,779	2019/4/23	METHOD AND APPARATUS FOR DETECTING PAGE REDIRECTION CIRCULATION
A12882US	US	16/392,166	2019/4/23	CREDIT RISK PREDICTION METHOD AND DEVICE BASED ON LSTM MODEL
PCT10004US	US	16/394,201	2019/4/25	DATA TRANSMISSION METHOD, APPARATUS AND SYSTEM
PCT10579US	US	16/400,550	2019/5/1	SCAN AND PAY METHOD AND DEVICE UTILIZED IN MOBILE APPARATUS
A18154DUS	US	29/689,811	2019/5/2	PAYMENT MACHINE
A18188DUS	US	29/689,822	2019/5/2	Payment Machine
A18683DUS	US	29/689,809	2019/5/2	PAYMENT MACHINE
PCT9461US	US	16/233,015	2018/12/26	NETWORK TRANSACTION METHOD AND DEVICE BASED ON PRIVILEGE SEPARATION CONTROL
PCT7940US	US	16/256,849	2019/1/24	TWO-DIMENSIONAL CODE IDENTIFICATION METHOD AND DEVICE, AND MOBILE TERMINAL
PCT10751US	US	16/405,570	2019/5/7	PAYMENT SERVICE EXECUTION SYSTEM, METHOD, AND DEVICE
PCT10824US	US	16/417,894	2019/5/21	RESOURCE ALLOCATION METHOD AND DEVICE, AND ELECTRONIC PAYMENT METHOD
A18681US	US	16/661,735	2019/10/23	METHOD, APPARATUS, AND ELECTRONIC DEVICE FOR BLOCKCHAIN-BASED RECORDKEEPING
A17892US	US	16/719,747	2019/12/18	MONITORING METHOD AND SYSTEM FOR OFFLINE PAYMENT MACHINE
A18340US	US	16/702,334	2019/12/3	METHOD AND DEVICE FOR FACE SELECTION, RECOGNITION AND COMPARISON
A19191US	US	16/698,813	2019/11/27	BLOCKCHAIN-BASED RECORDKEEPING METHOD AND APPARATUS
A19537US	US	16/697,972	2019/11/27	EVENT PROCESSING METHOD, APPARATUS AND ELECTRONIC DEVICE BASED ON BLOCKCHAIN TECHNOLOGY

A19536US	US	16/699,603	2019/11/30	EVENT PROCESSING METHOD, APPARATUS AND ELECTRONIC DEVICE BASED ON BLOCKCHAIN TECHNOLOGY
A19194US	US	16/708,133	2019/12/9	BLOCKCHAIN-BASED CONTENT MANAGEMENT SYSTEM, METHOD, APPARATUS, AND ELECTRONIC DEVICE
A19193US	US	16/722,772	2019/12/20	BLOCKCHAIN-BASED PRODUCT PURCHASE METHOD AND APPARATUS
A18680US	US	16/668,437	2019/10/30	METHOD, APPARATUS, AND ELECTRONIC DEVICE FOR BLOCKCHAIN-BASED RECORDKEEPING
A18337US	US	16/693,069	2019/11/22	METHOD, DEVICE AND TERMINAL FOR PAYMENT
A18335US	US	16/663,106	2019/10/24	METHOD AND APPARATUS FOR DELIVERING ADVERTISEMENTS
A18140US	US	16/660,563	2019/10/22	METHOD AND APPARATUS FOR UPDATING SHARED DATA IN A MULTI-CORE PROCESSOR ENVIRONMENT
A18138US	US	16/691,236	2019/11/21	METHOD, APPARATUS, ELECTRONIC DEVICE AND COMPUTER STORAGE MEDIUM FOR GENERATING INFORMATION IDENTIFICATION CODES
A15140US	US	16/446,304	2019/6/19	METHOD AND DEVICE FOR CASH ADVANCE RECOGNITION
A15189US	US	16/455,685	2019/6/27	METHOD AND APPARATUS FOR OBTAINING INPUT OF SECURE MULTIPARTY COMPUTATION PROTOCOL
A16079US	US	16/504,457	2019/7/8	DATA PROCESSING METHOD AND APPARATUS
A16196US	US	16/531,476	2019/8/5	METHOD, APPARATUS AND ELECTRONIC DEVICE FOR BLOCKCHAIN TRANSACTIONS
A16935US	US	16/531,609	2019/8/5	METHOD, APPARATUS AND ELECTRONIC DEVICE FOR BLOCKCHAIN TRANSACTIONS
A17056US	US	16/588,682	2019/9/30	METHOD, APPARATUS AND ELECTRONIC DEVICE FOR BLOCKCHAIN TRANSACTIONS
A15188US	US	16/455,511	2019/6/27	METHOD AND APPARATUS FOR OBTAINING INPUT OF SECURE MULTIPARTY COMPUTATION PROTOCOL
A15607US	US	16/591,749	2019/10/3	BLOCKCHAIN-BASED TRANSACTION PROCESSING METHOD, APPARATUS, AND ELECTRONIC DEVICE
A16161US	US	16/570,401	2019/9/13	DATA PROCESSING METHOD, APPARATUS, AND DEVICE
A16197US	US	16/554,507	2019/8/28	METHOD, APPARATUS AND ELECTRONIC DEVICE FOR BLOCKCHAIN TRANSACTIONS
A17053US	US	16/592,047	2019/10/3	METHOD, APPARATUS AND ELECTRONIC DEVICE FOR BLOCKCHAIN TRANSACTIONS
A17057US	US	16/533,704	2019/8/6	METHOD, APPARATUS AND ELECTRONIC DEVICE FOR BLOCKCHAIN TRANSACTIONS
PCT10650US	US	16/421,188	2019/5/23	SERVICE PROCESSING METHOD AND APPARATUS
PCT19910US	US	16/464,172	2018/12/29	SYSTEM AND METHOD FOR DETECTING REPLAY ATTACK
PCT10854US	US	16/422,673	2019/5/24	METHOD AND DEVICE FOR ALLOCATING AUGMENTED REALITY-BASED VIRTUAL OBJECTS
PCT18620US	US	16/464,148	2018/12/29	SYSTEM AND METHOD FOR IMPLEMENTING NATIVE CONTRACT ON BLOCKCHAIN
PCT17511US	US	16/464,013	2018/12/29	SYSTEM AND METHOD FOR DETECTING REPLAY ATTACK
PCT17825US	US	16/464,061	2018/12/29	SYSTEM AND METHOD FOR INFORMATION PROTECTION
PCT10910US	US	16/424,038	2019/5/28	METHOD FOR ADJUSTING RISK PARAMETER, AND METHOD AND DEVICE FOR RISK IDENTIFICATION
A20413DUS	US	29/701,984	2019/8/15	Holder
A20414DUS	US	29/702,384	2019/8/19	Vehicle Speaker
A20417DUS	US	29/701,994	2019/8/15	Stand
A21168DUS	US	29/705,323	2019/9/11	SMART PAYMENT ANNOUNCEMENT DEVICE
PCT11629US	US	16/584,579	2019/9/26	METHOD AND DEVICE FOR WRITING SERVICE DATA IN BLOCK CHAIN SYSTEM
PCT11645US	US	16/579,331	2019/9/23	METHOD AND APPARATUS FOR USE IN PREVIEWING DURING IRIS RECOGNITION PROCESS

PCT11711US	US	16/655,620	2019/10/17	METHOD AND DEVICE FOR PROCESSING ELECTRONIC COUPON LINK
PCT11772US	US	16/684,831	2019/11/15	METHOD AND APPARATUS FOR CLUSTERING DATA STREAM
PCT11780US	US	16/586,796	2019/9/27	INFORMATION PROCESSING METHOD AND DEVICE BASED ON INTERNET OF THINGS
PCT11816US	US	16/662,837	2019/10/24	METHOD AND APPARATUS FOR OBTAINING VEHICLE LOSS ASSESSMENT IMAGE, SERVER AND TERMINAL DEVICE
PCT11817US	US	16/655,001	2019/10/16	METHOD AND APPARATUS FOR OBTAINING VEHICLE LOSS ASSESSMENT IMAGE, SERVER AND TERMINAL DEVICE
PCT12034US	US	16/692,153	2019/11/22	DATA COLLECTION METHOD AND APPARATUS FOR RISK EVALUATION, AND ELECTRONIC DEVICE
PCT12035US	US	16/690,949	2019/11/21	METHOD AND APPARATUS FOR DETERMINING LEVEL OF RISK OF USER, AND COMPUTER DEVICE
PCT12036US	US	16/691,161	2019/11/21	METHOD FOR DETERMINING RISK PREFERENCE OF USER, INFORMATION RECOMMENDATION METHOD, AND APPARATUS
PCT3133USC1	US	16/429,141	2019/6/3	Service Processing Method, Apparatus and Server
PCT10651US	US	16/442,686	2019/6/17	CURRENCY TYPE SWITCHING METHOD AND DEVICE
PCT19696US	US	16/472,807	2019/2/28	SYSTEM AND METHOD FOR BLOCKCHAIN-BASED DATA MANAGEMENT
PCT11393US	US	16/535,887	2019/8/8	VIRTUAL REALITY SCENE-BASED BUSINESS VERIFICATION METHOD AND DEVICE
PCT11391US	US	16/527,978	2019/7/31	VIRTUAL REALITY HEAD-MOUNTED APPARATUS
PCT11388US	US	16/526,228	2019/7/30	VIRTUAL REALITY HEAD-MOUNTED APPARATUS
PCT11387US	US	16/520,561	2019/7/24	VIRTUAL REALITY HEAD-MOUNTED APPARATUS
PCT11386US	US	16/517,487	2019/7/19	VIRTUAL REALITY HEAD-MOUNTED APPARATUS
PCT11385US	US	16/511,353	2019/7/15	VIRTUAL REALITY HEAD-MOUNTED APPARATUS
PCT11063US	US	16/535,746	2019/8/8	RISK MANAGEMENT AND CONTROL METHOD AND DEVICE
PCT10939US	US	16/513,432	2019/7/16	BLOCKCHAIN SYSTEM AND DATA STORAGE METHOD AND APPARATUS
PCT10653US	US	16/446,534	2019/6/19	RESOURCE PROCESSING METHOD AND APPARATUS
PCT10583US	US	16/459,294	2019/7/1	DATA ACQUISITION METHOD AND DEVICE
PCT10571US	US	16/460,453	2019/7/2	APPLICATION-BASED DATA INTERACTION METHOD AND APPARATUS
PCT10338US	US	16/450,976	2019/6/24	SERVICE PROCESSING METHOD AND APPARATUS
PCT10336US	US	16/535,035	2019/8/7	METHOD AND APPARATUS FOR WRITING SERVICE DATA INTO BLOCK CHAIN AND METHOD FOR DETERMINING SERVICE SUBSET
PCT10335US	US	16/507,983	2019/7/10	DATA PROCESSING METHOD AND DEVICE
PCT23199US	US	16/472,752	2019/2/28	SYSTEM AND METHOD FOR IMPLEMENTING BLOCKCHAIN-BASED DIGITAL CERTIFICATES
PCT19695US	US	16/472,789	2019/2/28	SYSTEM AND METHOD FOR BLOCKCHAIN-BASED AUTHENTICATION
PCT19697US	US	16/472,606	2019/2/28	SYSTEM AND METHOD FOR GENERATING DIGITAL MARKS
A19609DUS	US	29/695,352	2019/6/18	Wireless Signal Sensor
A19643DUS	US	29/695,275	2019/6/18	BROADCAST CONTROL BOX
A19610DUS	US	29/695,273	2019/6/18	SENSING BOX
A19608DUS	US	29/695,491	2019/6/19	IMAGE CAPTURE AND ANALYSIS DEVICE
A19642DUS	US	29/695,267	2019/6/18	VERTICAL ADVERTISING MACHINE
A19909DUS	US	29/696,967	2019/7/2	VEHICLE EQUIPMENT



PCT3579US C1	US	16/505,151	2019/7/8	Service Processing Method and Apparatus, and Service Server
PCT18141U S	US	16/490,834	2019/3/28	SYSTEM AND METHOD FOR PARALLEL-PROCESSING BLOCKCHAIN TRANSACTIONS
PCT18621U S	US	16/495,775	2019/3/26	SYSTEM AND METHOD FOR IMPLEMENTING DIFFERENT TYPES OF BLOCKCHAIN CONTRACTS
PCT23200U S	US	16/494,592	2019/3/18	CONSENSUS SYSTEM DOWNTIME RECOVERY
PCT19678U S	US	16/490,871	2019/3/18	CONSENSUS SYSTEM DOWNTIME RECOVERY
PCT19679U S	US	16/497,543	2019/3/18	SYSTEM AND METHOD FOR ENDING VIEW CHANGE PROTOCOL
PCT19680U S	US	16/498,348	2019/3/18	SYSTEM AND METHOD FOR ENDING VIEW CHANGE PROTOCOL
PCT21065U S	US	16/496,342	2019/3/27	SYSTEM AND METHOD FOR MANAGING USER INTERACTIONS WITH A BLOCKCHAIN
PCT12884U S	US	16/675,399	2019/11/6	SERVICE EXECUTION METHOD, APPARATUS, AND DEVICE FOR USE IN CLIENT TERMINAL AND SERVER
PCT12867U S	US	16/715,052	2019/12/16	METHOD AND APPARATUS FOR IMPROVING VEHICLE LOSS ASSESSMENT IMAGE IDENTIFICATION RESULT AND SERVER
PCT12866U S	US	16/714,722	2019/12/14	METHOD AND APPARATUS FOR IMPROVING VEHICLE LOSS ASSESSMENT IMAGE IDENTIFICATION RESULT, AND SERVER
PCT12863U S	US	16/736,714	2020/1/7	VIRTUAL CARD OPENING METHOD AND SYSTEM, PAYMENT SYSTEM, AND CARD ISSUING SYSTEM
A22026DUS	US	29/715,006	2019/11/27	SMART SCANNING DEVICE
A22017DFU S	US	29/713,277	2019/11/14	DECORATION ACCESSORY KIT
A19932DUS	US	29/707,468	2019/9/27	SMART PAYMENT NOTIFICATION DEVICE
A22017DUS	US	29/713,272	2019/11/14	SMART SPEAKER CASE
A21940DUS	US	29/713,105	2019/11/13	SCANNING DEVICE
A6010USC1	US	16/563,073	2019/9/6	METHOD, SYSTEM, AND DEVICE FOR PROCESS TRIGGERING
PCT10939U SC1	US	16/705,886	2019/12/6	BLOCKCHAIN SYSTEM AND DATA STORAGE METHOD AND APPARATUS
PCT24175U S	US	16/737,813	2020/1/8	SYSTEM AND METHOD FOR BLOCKCHAIN-BASED CROSS-ENTITY AUTHENTICATION
PCT9536US C1	US	16/587,376	2019/9/30	USER IDENTITY VERIFICATION METHOD, APPARATUS AND SYSTEM
PCT24174U S	US	16/737,806	2020/1/8	SYSTEM AND METHOD FOR BLOCKCHAIN-BASED CROSS-ENTITY AUTHENTICATION
PCT24173U S	US	16/735,018	2020/1/6	SYSTEM AND METHOD FOR DECENTRALIZED-IDENTIFIER AUTHENTICATION
PCT24172U S	US	16/735,056	2020/1/6	SYSTEM AND METHOD FOR DECENTRALIZED-IDENTIFIER CREATION
PCT24171U S	US	16/737,797	2020/1/8	SYSTEM AND METHOD FOR BLOCKCHAIN-BASED NOTIFICATION
PCT24419U S	US	16/741,951	2020/1/14	SYSTEM AND METHOD FOR DIGITAL ASSET MANAGEMENT
PCT24420U S	US	16/741,979	2020/1/14	SYSTEM AND METHOD FOR DIGITAL ASSET TRANSFER
PCT24421U S	US	16/742,005	2020/1/14	SYSTEM AND METHOD FOR CONTROLLING RESTRICTIONS ON DIGITAL ASSET
PCT24422U S	US	16/742,025	2020/1/14	SYSTEM AND METHOD FOR DIGITAL ASSET VALUATION
PCT24155U S	US	16/722,372	2019/12/20	SYSTEM AND METHOD FOR REGISTERING SUBSCRIBABLE STATES IN BLOCKCHAIN
PCT24156U S	US	16/722,405	2019/12/20	SYSTEM AND METHOD FOR BLOCKCHAIN-BASED NOTIFICATION
PCT24158U S	US	16/722,487	2019/12/20	SYSTEM AND METHOD FOR BLOCKCHAIN-BASED NOTIFICATION
PCT24157U S	US	16/722,457	2019/12/20	SYSTEM AND METHOD FOR REGISTERING SUBSCRIBABLE SUB-STATES IN BLOCKCHAIN
PCT18613U S	US	16/715,126	2019/12/16	SYSTEM AND METHOD FOR ADDING NODE IN BLOCKCHAIN NETWORK

PCT24788US	US	16/715,963	2019/12/16	SYSTEM AND METHOD FOR DELETING NODE IN BLOCKCHAIN NETWORK
PCT21091US	US	16/716,016	2019/12/16	SYSTEM AND METHOD FOR EXECUTING DIFFERENT TYPES OF BLOCKCHAIN CONTRACTS
PCT21791US	US	16/715,151	2019/12/16	SYSTEM AND METHOD FOR DATA PROCESSING
PCT21066US	US	16/714,717	2019/12/14	SYSTEM AND METHOD FOR PROVIDING PRIVACY AND SECURITY PROTECTION IN BLOCKCHAIN-BASED PRIVATE TRANSACTIONS
PCT23552US	US	16/734,972	2020/1/6	SYSTEM AND METHOD FOR IMPLEMENTING A RESOLVER SERVICE FOR DECENTRALIZED IDENTIFIERS
PCT23551US	US	16/735,538	2020/1/6	SYSTEM AND METHOD FOR MAPPING DECENTRALIZED IDENTIFIERS TO REAL-WORLD ENTITIES
PCT23458US	US	16/718,937	2019/12/18	SYSTEM AND METHOD FOR CREATING DECENTRALIZED IDENTIFIERS
PCT23459US	US	16/718,984	2019/12/18	SYSTEM AND METHOD FOR ISSUING VERIFIABLE CLAIMS
PCT23460US	US	16/719,026	2019/12/18	SYSTEM AND METHOD FOR VERIFYING VERIFIABLE CLAIMS
PCT23450US	US	16/738,920	2020/1/9	SYSTEM AND METHOD FOR UPDATING DATA IN BLOCKCHAIN
PCT23451US	US	16/739,008	2020/1/9	SYSTEM AND METHOD FOR BLOCKCHAIN ADDRESS MAPPING
PCT22316US	US	16/716,932	2019/12/17	CONSENSUS SYSTEM AND METHOD
PCT24398US	US	16/722,533	2019/12/20	SYSTEM AND METHOD FOR ROUTING OPTIMIZATION
A2211USC1	US	16/675,463	2019/11/6	METHOD AND APPARATUS OF DISPLAYING INFORMATION
PCT13257US	US	16/806,781	2020/3/2	CREDIT-BASED CLAIM SETTLEMENT IMPLEMENTING METHOD AND DEVICE
PCT13163US	US	16/813,168	2020/3/9	RESOURCE TRANSFER VERIFICATION METHOD AND APPARATUS, AND ELECTRONIC PAYMENT VERIFICATION METHOD AND APPARATUS
PCT13132US	US	16/776,456	2020/1/29	METHOD, DEVICE, AND APPARATUS FOR WORD VECTOR PROCESSING BASED ON CLUSTERS
PCT13125US	US	16/743,120	2020/1/15	METHOD AND APPARATUS FOR PAYING FARE
PCT13123US	US	16/806,525	2020/3/2	DATA STATISTICS METHOD AND APPARATUS
PCT13120US	US	16/802,157	2020/2/26	SYSTEM AND METHOD FOR REALIZING IDENTITY IDENTIFICATION ON THE BASIS OF RADIO FREQUENCY IDENTIFICATION TECHNOLOGY
PCT13119US	US	16/742,617	2020/1/14	QUICK ENABLING METHOD AND APPARATUS FOR SERVICE IN APPLICATION PROGRAM AND ELECTRONIC DEVICE
PCT13116US	US	16/798,018	2020/2/21	VIDEO PROCESSING METHOD AND APPARATUS BASED ON AUGMENTED REALITY, AND ELECTRONIC DEVICE
PCT13039US	US	16/813,268	2020/3/9	MACHINE LEARNING MODEL TRAINING METHOD AND DEVICE, AND ELECTRONIC DEVICE
PCT13023US	US	16/743,224	2020/1/15	CLUSTER-BASED WORD VECTOR PROCESSING METHOD, DEVICE, AND APPARATUS
PCT13019US	US	16/812,163	2020/3/6	BIOMETRIC AUTHENTICATION, IDENTIFICATION AND DETECTION METHOD AND DEVICE FOR MOBILE TERMINAL AND EQUIPMENT
PCT13018US	US	16/788,217	2020/2/11	RESOURCE TRANSFER AND CAPITAL TRANSFER METHOD AND APPARATUS
PCT13017US	US	16/780,819	2020/2/3	DATA PROCESSING METHOD AND APPARATUS
PCT13016US	US	16/752,460	2020/1/24	METHOD AND APPARATUS FOR ENCRYPTING AND DECRYPTING PRODUCT INFORMATION
PCT12996US	US	16/797,882	2020/2/21	SERVICE PROCESS STARTING METHOD AND APPARATUS
PCT12993US	US	16/794,113	2020/2/18	ACCOUNT INFORMATION MANAGEMENT METHOD AND APPARATUS

PCT12893US	US	16/795,387	2020/2/19	METHOD AND APPARATUS FOR DETERMINING RISK MANAGEMENT DECISION-MAKING CRITICAL VALUES
PCT12892US	US	16/736,603	2020/1/7	RANDOM WALKING AND CLUSTER-BASED RANDOM WALKING METHOD, APPARATUS AND DEVICE
PCT12855US	US	16/745,657	2020/1/17	FARE COLLECTION DEVICE FOR MEANS OF PUBLIC TRANSPORT
PCT12773US	US	16/806,324	2020/3/2	MODEL INTEGRATION METHOD AND DEVICE
PCT12771US	US	16/736,673	2020/1/7	RANDOM WALKING AND CLUSTER-BASED RANDOM WALKING METHOD, APPARATUS AND DEVICE
PCT12742US	US	16/796,616	2020/2/20	METHOD AND APPARATUS FOR RECOGNIZING ILLEGAL BEHAVIOR IN UNATTENDED SCENARIO
PCT12741US	US	16/746,757	2020/1/17	DATA SAMPLE LABEL PROCESSING METHOD AND APPARATUS
PCT12632US	US	16/736,962	2020/1/8	DOCUMENT VERIFICATION SYSTEM, DEVICE, AND METHOD USING A CLASSIFICATION MODEL
PCT12297US	US	16/737,766	2020/1/8	SECURITY SCANNING METHOD AND APPARATUS FOR MINI PROGRAM, AND ELECTRONIC DEVICE
A12641USC1	US	16/716,838	2019/12/17	CODE SCANNING SECURITY CHECK METHOD AND APPARATUS
PCT17147USC1	US	16/708,249	2019/12/9	SYSTEM AND METHOD FOR INFORMATION PROTECTION
PCT17156USC1	US	16/708,329	2019/12/9	SYSTEM AND METHOD FOR INFORMATION PROTECTION
PCT17824USC1	US	16/709,817	2019/12/10	SYSTEM AND METHOD FOR IMPROVING SECURITY OF SMART CONTRACT ON BLOCKCHAIN
PCT17158USC1	US	16/709,770	2019/12/10	SYSTEM AND METHOD FOR INFORMATION PROTECTION
PCT17511USC1	US	16/716,970	2019/12/17	SYSTEM AND METHOD FOR DETECTING REPLAY ATTACK
PCT17825USC1	US	16/870,662	2020/5/8	SYSTEM AND METHOD FOR INFORMATION PROTECTION
PCT19910USC1	US	16/717,081	2019/12/17	SYSTEM AND METHOD FOR DETECTING REPLAY ATTACK
PCT19695USC1	US	16/725,937	2019/12/23	SYSTEM AND METHOD FOR BLOCKCHAIN-BASED AUTHENTICATION
PCT19696USC1	US	16/735,499	2020/1/6	SYSTEM AND METHOD FOR BLOCKCHAIN-BASED DATA MANAGEMENT
PCT19697USC1	US	16/738,155	2020/1/9	SYSTEM AND METHOD FOR GENERATING DIGITAL MARKS
PCT23199USC1	US	16/738,195	2020/1/9	SYSTEM AND METHOD FOR IMPLEMENTING BLOCKCHAIN-BASED DIGITAL CERTIFICATES
PCT23200USC1	US	16/724,349	2019/12/22	CONSENSUS SYSTEM DOWNTIME RECOVERY
PCT17159USC1	US	16/709,794	2019/12/10	SYSTEM AND METHOD FOR INFORMATION PROTECTION
PCT17149USC1	US	16/708,297	2019/12/9	SYSTEM AND METHOD FOR INFORMATION PROTECTION
PCT18620USC1	US	16/725,290	2019/12/23	SYSTEM AND METHOD FOR IMPLEMENTING NATIVE CONTRACT ON BLOCKCHAIN
PCT18141USC1	US	16/735,233	2020/1/6	SYSTEM AND METHOD FOR PARALLEL-PROCESSING BLOCKCHAIN TRANSACTIONS
PCT19679USC1	US	16/735,387	2020/1/6	SYSTEM AND METHOD FOR ENDING VIEW CHANGE PROTOCOL
PCT18621USC1	US	16/735,307	2020/1/6	SYSTEM AND METHOD FOR IMPLEMENTING DIFFERENT TYPES OF BLOCKCHAIN CONTRACTS
PCT21065USC1	US	16/742,710	2020/1/14	SYSTEM AND METHOD FOR MANAGING USER INTERACTIONS WITH A BLOCKCHAIN
PCT19680USC1	US	16/735,457	2020/1/6	SYSTEM AND METHOD FOR ENDING VIEW CHANGE PROTOCOL
PCT19678USC1	US	16/724,347	2019/12/22	CONSENSUS SYSTEM DOWNTIME RECOVERY
PCT9749USC1	US	16/730,873	2019/12/30	DATA STORAGE, DATA CHECK, AND DATA LINKAGE METHOD AND APPARATUS
A16935USC1	US	16/738,055	2020/1/9	METHOD, APPARATUS AND ELECTRONIC DEVICE FOR BLOCKCHAIN TRANSACTIONS

A12778USC 1	US	16/744,079	2020/1/15	Data Storage Method, Data Query Method and Apparatuses
A11432USC 1	US	16/745,033	2020/1/16	METHOD AND APPARATUS FOR PROCESSING TRANSACTION REQUESTS
PCT10336U SC1	US	16/745,519	2020/1/17	METHOD AND APPARATUS FOR WRITING SERVICE DATA INTO BLOCK CHAIN AND METHOD FOR DETERMINING SERVICE SUBSET
A16079USC 1	US	16/775,157	2020/1/28	DATA PROCESSING METHOD AND APPARATUS
PCT18613U SC1	US	16/741,270	2020/1/13	SYSTEM AND METHOD FOR ADDING NODE IN BLOCKCHAIN NETWORK
A12477USC 1	US	16/752,365	2020/1/24	Method, Apparatus, and Electronic Device for Processing Consensus Requests in a Blockchain Consensus Network
A11431USC 1	US	16/752,323	2020/1/24	METHOD AND APPARATUS FOR CONSENSUS VERIFICATION
A11444USC 1	US	16/752,422	2020/1/24	Method, Apparatus, and System for Blockchain Consensus
PCT10335U SC1	US	16/774,929	2020/1/28	BLOCKCHAIN-BASED DATA PROCESSING METHOD AND DEVICE
PCT11629U SC1	US	16/775,116	2020/1/28	METHOD AND DEVICE FOR WRITING SERVICE DATA IN BLOCK CHAIN SYSTEM
PCT10338U SC1	US	16/779,641	2020/2/2	BLOCKCHAIN-BASED TRANSACTION PROCESSING METHOD AND APPARATUS
A15189USC 1	US	16/784,421	2020/2/7	METHOD AND APPARATUS FOR OBTAINING INPUT OF SECURE MULTIPARTY COMPUTATION PROTOCOL
PCT16020U S	US	16/894,884	2020/6/8	BLOCKCHAIN-BASED METHOD AND APPARATUS FOR PRE-EXCHANGING AVAILABLE RESOURCE QUOTAS
PCT16019U S	US	16/894,881	2020/6/8	BLOCKCHAIN-BASED SET EXCHANGE METHOD AND APPARATUS FOR AVAILABLE RESOURCE QUOTAS
PCT16018U S	US	16/894,846	2020/6/7	BLOCKCHAIN-BASED EXCHANGE METHOD AND APPARATUS FOR AVAILABLE RESOURCE QUOTAS
PCT15777U S	US	16/888,810	2020/5/31	PAYMENT COLLECTION DEVICE AND METHOD AND APPARATUS
PCT15742U S	US	16/890,543	2020/6/2	Transaction Card and Information Displaying Method
PCT14813U S	US	16/889,548	2020/6/1	PAYMENT PASSWORD RESET METHOD AND APPARATUS, AND ELECTRONIC DEVICE
PCT14562U S	US	16/888,833	2020/5/31	SERVICE PROCESSING METHOD, DEVICE AND APPARATUS
PCT13875U S	US	16/911,089	2020/6/24	RESOURCE TRANSFERRING MONITORING METHOD AND DEVICE
PCT13702U S	US	16/905,432	2020/6/18	OBJECT DISPLAY FRAME, DATA PROCESSING METHOD, DEVICE, EQUIPMENT AND SYSTEM
PCT13695U S	US	16/880,315	2020/5/21	PAYMENT CARD BINDING METHOD, TRUST EVALUATION METHOD, APPARATUS, AND ELECTRONIC DEVICE
PCT13689U S	US	16/892,902	2020/6/4	Identity Verification Method and Device and Electronic Device
PCT13681U S	US	16/888,584	2020/5/29	LIVING BODY DETECTION METHOD, APPARATUS AND DEVICE
PCT13677U S	US	16/878,521	2020/5/19	URL ABNORMALITY POSITIONING METHOD AND DEVICE, AND SERVER AND STORAGE MEDIUM
PCT13672U S	US	16/888,801	2020/5/31	METHOD AND APPARATUS FOR TRANSFERRING FROM ROBOT CUSTOMER SERVICE TO HUMAN CUSTOMER SERVICE
PCT13566U S	US	16/882,350	2020/5/22	ELECTRONIC CERTIFICATE TRANSMISSION METHOD, APPARATUS AND DEVICE
PCT13559U S	US	16/903,210	2020/6/16	Payment Method, Apparatus and Device
PCT13426U S	US	16/889,269	2020/6/1	Location Information Processing Method and Apparatus
PCT13415U S	US	16/875,850	2020/5/15	Method and Apparatus for Visualization of Public Welfare Activities
PCT13409U S	US	16/882,685	2020/5/25	MOBILE TERMINAL CLICK EVENT RECOGNITION METHOD AND APPARATUS
PCT12870U S	US	16/884,526	2020/5/27	Identity Verification Method and Apparatus

PCT2871US C1	US	16/804,768	2020/2/28	METHOD AND DEVICE FOR IDENTITY AUTHENTICATION
PCT21951U S	US	16/838,920	2020/4/2	METHOD, APPARATUS, TERMINAL, AND READABLE STORAGE MEDIUM FOR OFFLINE CACHING
PCT23618U S	US	16/875,929	2020/5/15	CREDIT CONTRACT PROCESSING METHOD AND APPARATUS
PCT23206U S	US	16/859,795	2020/4/27	NODE LAYOUT DETERMINING METHOD AND APPARATUS, COMPUTING DEVICE, AND COMPUTER READABLE MEDIUM
PCT23198U S	US	16/860,065	2020/4/28	APPLET-BASED ACCOUNT SECURITY PROTECTION METHOD AND SYSTEM
PCT23028U S	US	16/888,797	2020/5/31	BUSINESS PROCESSING METHOD, APPARATUS, AND EQUIPMENT
PCT23017U S	US	16/888,817	2020/5/31	PAYMENT METHOD AND DEVICE
PCT23016U S	US	16/878,587	2020/5/19	METHOD AND APPARATUS FOR CERTIFICATE IDENTIFICATION
PCT23015U S	US	16/879,427	2020/5/20	METHOD AND APPARATUS FOR CERTIFICATE IDENTIFICATION
PCT22994U S	US	16/822,902	2020/3/18	ELECTRONIC DOOR OPENING/CLOSING APPARATUS AND ELECTRONIC DOOR OPENING/CLOSING DETECTION METHOD, APPARATUS AND DEVICE
PCT22975U S	US	16/882,880	2020/5/26	METHOD, APPARATUS, SYSTEM, SERVER, AND STORAGE MEDIUM FOR CONNECTING TABLES STORED AT DISTRIBUTED DATABASE
PCT22913U S	US	16/848,811	2020/4/14	BLOCKCHAIN-BASED IMAGE TRANSACTION SYSTEM, METHOD, APPARATUS, AND ELECTRONIC DEVICE
PCT22911U S	US	16/848,503	2020/4/14	BLOCKCHAIN-BASED DATA EVIDENCE STORAGE METHOD AND APPARATUS
PCT22899U S	US	16/877,337	2020/5/18	BLOCKCHAIN-BASED RELATIONSHIP BINDING METHOD, APPARATUS, AND DEVICE
PCT22889U S	US	16/834,999	2020/3/30	BLOCKCHAIN-BASED ENTERPRISE AUTHENTICATION METHOD, APPARATUS, AND DEVICE, AND BLOCKCHAIN-BASED AUTHENTICATION TRACEABILITY METHOD, APPARATUS, AND DEVICE
PCT22888U S	US	16/835,487	2020/3/31	BLOCKCHAIN-BASED IDENTITY AUTHENTICATION METHOD, APPARATUS, AND DEVICE
PCT22625U S	US	16/888,410	2020/5/29	METHOD AND APPARATUS FOR PROCESSING AND GENERATING OFFLINE GRAPHIC CODE
PCT22622U S	US	16/875,937	2020/5/15	GRAPHIC CODE DISPLAY METHOD AND APPARATUS
PCT22607U S	US	16/822,463	2020/3/18	RDMA-BASED DATA TRANSMISSION METHOD, NETWORK INTERFACE CARD, SERVER AND MEDIUM
PCT22606U S	US	16/854,740	2020/4/21	RDMA DATA SENDING AND RECEIVING METHODS, ELECTRONIC DEVICE, AND READABLE STORAGE MEDIUM
PCT22596U S	US	16/884,444	2020/5/27	DATA STORAGE METHOD AND APPARATUS
PCT22475U S	US	16/886,657	2020/5/28	BLOCKCHAIN-BASED PATROL INSPECTION PROOF STORAGE METHOD, APPARATUS, AND ELECTRONIC DEVICE
PCT22460U S	US	16/886,686	2020/5/28	SERVICE PROCESSING SYSTEM AND METHOD BASED ON BLOCKCHAIN
PCT22407U S	US	16/875,619	2020/5/15	METHOD AND APPARATUS FOR ACCESSING SERVICE SYSTEM
PCT22355U S	US	16/875,121	2020/5/15	FACE VERIFICATION METHOD AND APPARATUS, SERVER AND READABLE STORAGE MEDIUM
PCT22309U S	US	16/875,913	2020/5/15	BLOCKCHAIN-BASED RECONCILIATION SYSTEM, METHOD, AND APPARATUS AND ELECTRONIC DEVICE
PCT22302U S	US	16/888,305	2020/5/29	BLOCKCHAIN-BASED METHOD, APPARATUS, AND DEVICE
PCT21974U S	US	16/875,811	2020/5/15	ON-SHELF COMMODITY DETECTION METHOD AND SYSTEM

PCT21948US	US	16/827,233	2020/3/23	CAPITAL CHAIN INFORMATION TRACEABILITY METHOD, SYSTEM, SERVER AND READABLE STORAGE MEDIUM
PCT21946US	US	16/827,118	2020/3/23	MESSAGE SHUNTING METHOD, DEVICE AND SYSTEM BASED ON USER MODE PROTOCOL STACK
PCT21871US	US	16/879,496	2020/5/20	WIRELESS COMMUNICATIONS METHOD, APPARATUS, DEVICE, AND STORAGE MEDIUM
PCT21866US	US	16/883,730	2020/5/26	METHOD AND APPARATUS FOR SECURE CHECK-IN
PCT21799US	US	16/887,578	2020/5/29	BLOCKCHAIN-BASED FILE PROCESSING METHOD, APPARATUS, AND DEVICE, AND STORAGE MEDIUM
PCT21794US	US	16/876,036	2020/5/16	BLOCKCHAIN-BASED RECONCILIATION METHOD AND APPARATUS AND ELECTRONIC DEVICE
PCT21793US	US	16/877,362	2020/5/18	BLOCKCHAIN-BASED DATA SYNCHRONIZATION SYSTEM, METHOD, APPARATUS, AND ELECTRONIC DEVICE
PCT21741US	US	16/866,526	2020/5/4	BLOCKCHAIN-BASED IMAGE PROCESSING METHOD AND APPARATUS
PCT21740US	US	16/866,378	2020/5/4	Blockchain-Based Image Processing Method and Apparatus
PCT21739US	US	16/870,507	2020/5/8	Blockchain-Based Copyright Protection Method and Apparatus, and Electronic Device
PCT21734US	US	16/870,410	2020/5/8	METHOD, APPARATUS, AND ELECTRONIC DEVICE FOR BLOCKCHAIN-BASED INFRINGEMENT EVIDENCE STORAGE
PCT21660US	US	16/884,497	2020/5/27	DATA BLOCK STORAGE METHOD AND APPARATUS, AND ELECTRONIC DEVICE
PCT21191US	US	16/854,186	2020/4/21	BLOCKCHAIN-BASED DATA PROCESSING SYSTEM, METHOD, COMPUTING DEVICE AND STORAGE MEDIUM
PCT21181US	US	16/860,053	2020/4/27	METHOD AND DEVICE FOR VOICE BROADCAST
PCT21179US	US	16/823,264	2020/3/18	INFORMATION PROCESSING SYSTEM, METHOD, DEVICE AND EQUIPMENT
PCT21055US	US	16/848,765	2020/4/14	BLOCKCHAIN-BASED ADVERTISEMENT MONITORING METHOD AND APPARATUS, AND ELECTRONIC DEVICE
PCT21029US	US	16/853,419	2020/4/20	DATA PROCESSING METHOD AND DEVICE
PCT21017US	US	16/845,286	2020/4/10	VERIFICATION METHOD AND APPARATUS FOR USER SIGNING FAST PAYMENT WITH BANK CARD
PCT20992US	US	16/876,038	2020/5/16	BLOCKCHAIN-BASED PROGRAM REVIEW SYSTEM, METHOD, COMPUTING DEVICE AND STORAGE MEDIUM
PCT20953US	US	16/875,552	2020/5/15	BLOCKCHAIN-BASED DATA PROCESSING SYSTEM, METHOD, COMPUTING DEVICE AND STORAGE MEDIUM
PCT20952US	US	16/855,148	2020/4/22	INFORMATION READ/WRITE METHOD AND APPARATUS BASED ON BLOCKCHAIN
PCT20943US	US	16/885,059	2020/5/27	ADVERTISING MONITORING METHOD, SYSTEM, APPARATUS, AND ELECTRONIC EQUIPMENT
PCT20935US	US	16/877,380	2020/5/18	METHOD AND APPARATUS FOR DETERMINING VEHICLE SCHEDULING STRATEGY
PCT20894US	US	16/882,670	2020/5/25	PAYMENT COMPLAINT METHOD, DEVICE, SERVER AND READABLE STORAGE MEDIUM
PCT20771US	US	16/820,535	2020/3/16	METHOD AND DEVICE FOR SENSITIVE DATA MASKING BASED ON IMAGE RECOGNITION
PCT19006US	US	16/820,884	2020/3/17	METHOD AND SYSTEM FOR ACTIVE RISK CONTROL BASED ON INTELLIGENT INTERACTION
PCT18676US	US	16/821,836	2020/3/17	METHOD AND SYSTEM FOR PURCHASE AGREEMENT PROCESSING
PCT18400US	US	16/830,057	2020/3/25	METHOD, APPARATUS AND SYSTEM FOR SELF-SERVICE CONTRACT FOR MOBILE PAYMENTS
PCT17372US	US	16/877,394	2020/5/18	Method and System for Outer Join of Database Tables
PCT17162US	US	16/841,418	2020/4/6	RELIABLE USER SERVICE SYSTEM AND METHOD
PCT17160US	US	16/836,725	2020/3/31	METHOD AND DEVICE FOR SECURITY ASSESSMENT OF ENCRYPTION MODELS

PCT17153US	US	16/841,462	2020/4/6	METHOD AND SYSTEM FOR PERSONAL DATA SERVICE BASED ON SECURE COMPUTATION
PCT3465USC1	US	16/872,209	2020/5/11	Method and Server for Displaying Access Content
A11435USC1	US	16/805,507	2020/2/28	BLOCKCHAIN-BASED TRANSACTION PROCESSING METHOD AND APPARATUS
PCT19679USC2	US	16/811,037	2020/3/6	SYSTEM AND METHOD FOR ENDING VIEW CHANGE PROTOCOL
PCT23551USC1	US	16/846,150	2020/4/10	SYSTEM AND METHOD FOR MAPPING DECENTRALIZED IDENTIFIERS TO REAL-WORLD ENTITIES
PCT23552USC1	US	16/846,192	2020/4/10	SYSTEM AND METHOD FOR IMPLEMENTING A RESOLVER SERVICE FOR DECENTRALIZED IDENTIFIERS
A15607USC1	US	16/807,871	2020/3/3	BLOCKCHAIN-BASED TRANSACTION PROCESSING METHOD, APPARATUS, AND ELECTRONIC DEVICE
A16161USC1	US	16/815,895	2020/3/11	DATA PROCESSING METHOD, APPARATUS, AND DEVICE
A17053USC1	US	16/817,741	2020/3/13	METHOD, APPARATUS AND ELECTRONIC DEVICE FOR BLOCKCHAIN TRANSACTIONS
A18138USC1	US	16/843,784	2020/4/8	METHOD, APPARATUS, ELECTRONIC DEVICE AND COMPUTER STORAGE MEDIUM FOR GENERATING INFORMATION IDENTIFICATION CODES
PCT9489USC1	US	16/867,527	2020/5/5	AUTHENTICATION METHOD, DEVICE AND AUTHENTICATION CLIENT
PCT24158USC1	US	16/847,433	2020/4/13	SYSTEM AND METHOD FOR BLOCKCHAIN-BASED NOTIFICATION
PCT24420USC1	US	16/855,891	2020/4/22	SYSTEM AND METHOD FOR DIGITAL ASSET TRANSFER
PCT24156USC1	US	16/847,372	2020/4/13	SYSTEM AND METHOD FOR BLOCKCHAIN-BASED NOTIFICATION
PCT10939USC2	US	16/917,730	2020/6/30	BLOCKCHAIN SYSTEM AND DATA STORAGE METHOD AND APPARATUS
PCT24155USC1	US	16/859,707	2020/4/27	SYSTEM AND METHOD FOR REGISTERING SUBSCRIBABLE STATES IN BLOCKCHAIN
PCT17147USC2	US	16/877,276	2020/5/18	SYSTEM AND METHOD FOR INFORMATION PROTECTION
PCT17159USC2	US	16/862,993	2020/4/30	SYSTEM AND METHOD FOR INFORMATION PROTECTION
PCT17159USC3	US	16/863,060	2020/4/30	SYSTEM AND METHOD FOR INFORMATION PROTECTION
A19536USC1	US	16/875,841	2020/5/15	EVENT PROCESSING METHOD, APPARATUS AND ELECTRONIC DEVICE BASED ON BLOCKCHAIN TECHNOLOGY
A12477USC2	US	16/847,481	2020/4/13	Method, Apparatus, and Electronic Device for Processing Consensus Requests in a Blockchain Consensus Network
PCT10338USC2	US	16/884,861	2020/5/27	SERVICE PROCESSING METHOD AND APPARATUS
PCT24788USC1	US	16/891,793	2020/6/3	SYSTEM AND METHOD FOR DELETING NODE IN BLOCKCHAIN NETWORK
PCT21791USC1	US	16/893,201	2020/6/4	SYSTEM AND METHOD FOR DATA PROCESSING
PCT23450USC1	US	16/893,149	2020/6/4	SYSTEM AND METHOD FOR UPDATING DATA IN BLOCKCHAIN
PCT24175USC1	US	16/898,265	2020/6/10	SYSTEM AND METHOD FOR BLOCKCHAIN-BASED CROSS-ENTITY AUTHENTICATION
A11435USC2	US	16/895,881	2020/6/8	BLOCKCHAIN-BASED TRANSACTION PROCESSING METHOD AND APPARATUS
PCT19680USC2	US	16/902,401	2020/6/16	SYSTEM AND METHOD FOR ENDING VIEW CHANGE PROTOCOL
A6010USC2	US	16/925,256	2020/7/9	METHOD, SYSTEM, AND DEVICE FOR PROCESS TRIGGERING
PCT24158USC2	US	16/903,275	2020/6/16	SYSTEM AND METHOD FOR BLOCKCHAIN-BASED NOTIFICATION
PCT24174USC1	US	16/912,325	2020/6/25	SYSTEM AND METHOD FOR BLOCKCHAIN-BASED CROSS-ENTITY AUTHENTICATION
A16196USC1	US	16/879,728	2020/5/20	METHOD, APPARATUS AND ELECTRONIC DEVICE FOR BLOCKCHAIN TRANSACTIONS
A18680USC1	US	15/931,879	2020/5/14	METHOD, APPARATUS, AND ELECTRONIC DEVICE FOR BLOCKCHAIN-BASED RECORDKEEPING

A17056USC 1	US	16/879,718	2020/5/20	METHOD, APPARATUS AND ELECTRONIC DEVICE FOR BLOCKCHAIN TRANSACTIONS
PCT24157U SC1	US	16/943,920	2020/7/30	SYSTEM AND METHOD FOR REGISTERING SUBSCRIBABLE SUB-STATES IN BLOCKCHAIN
PCT24155U SC2	US	16/943,852	2020/7/30	SYSTEM AND METHOD FOR REGISTERING SUBSCRIBABLE STATES IN BLOCKCHAIN
PCT21091U SC1	US	16/883,817	2020/5/26	SYSTEM AND METHOD FOR EXECUTING DIFFERENT TYPES OF BLOCKCHAIN CONTRACTS
A16197USC 1	US	16/878,236	2020/5/19	METHOD, APPARATUS AND ELECTRONIC DEVICE FOR BLOCKCHAIN TRANSACTIONS
A18681USC 1	US	15/931,909	2020/5/14	METHOD, APPARATUS, AND ELECTRONIC DEVICE FOR BLOCKCHAIN-BASED RECORDKEEPING
PCT17147U SC3	US	16/940,254	2020/7/27	SYSTEM AND METHOD FOR INFORMATION PROTECTION
PCT12742U SC1	US	16/943,639	2020/7/30	METHOD AND APPARATUS FOR RECOGNIZING ILLEGAL BEHAVIOR IN UNATTENDED SCENARIO
A19537USC 1	US	16/945,056	2020/7/31	EVENT PROCESSING METHOD, APPARATUS AND ELECTRONIC DEVICE BASED ON BLOCKCHAIN TECHNOLOGY
A17057USC 1	US	16/882,841	2020/5/26	METHOD, APPARATUS AND ELECTRONIC DEVICE FOR BLOCKCHAIN TRANSACTIONS
PCT3054US	US	15505418	2015/8/11	Method and Device for Processing Continuous Redirection
PCT3771US	US	15532934	2015/12/3	METHOD AND APPARATUS FOR PROCESSING VOICE INFORMATION TO DETERMINE EMOTION BASED ON VOLUME AND PACING OF THE VOICE