JUSTIA

Twitter Patents

Twitter is a global communications platform that allows people to create, distribute and discover content 140 characters at a time. The company generates the majority of its revenues from third party advertising through Promoted Tweets, Promoted Accounts and Promoted Trends.

Twitter Patents by Type

- Twitter Patents Granted: Twitter patents that have been granted by the United States Patent and Trademark Office (USPTO).
- Twitter Patent Applications: Twitter patent applications that are pending before the United States Patent and Trademark Office (USPTO).

Prioritizing messages within a message network
Patent number: 11606323
Abstract: A system and a method are disclosed for recommending electronic messages in a message sharing system. Users can post messages to the message sharing system. These messages from posting users are received by the system and sent to receiving users that have subscribed to the posting users. The receiving users interact with the messages in

various ways, such as by sharing the messages with other users. Interaction information is received for each of the electronic messages. The interaction information includes an indication of the number of interactions with the electronic message by receiving users. A score is determined for each electronic message based on the interaction information. Electronic messages are selected for being recommended to a user or a group of users based on the scores. The recommendations are then sent to the users, enabling users to better focus their attention on messages that are likely to be interesting.

Type: Grant

Filed: September 14, 2020

Date of Patent: March 14, 2023

Assignee: Twitter, Inc.

Inventors: Abdur Chowdhury, Ashish Goel, Ram Ravichandran

Method and system for topic disambiguation and classification

Patent number: 11601510

Abstract: A method for generating recommendations involves selecting a first platform message, making a first determination that the first platform message is potentially associated with a plurality of topics including a first topic and a second topic, obtaining additional information associated with the first platform message including at least one of information about an account that authored the first platform message and information about third party accounts engaging with the first platform message, making a second determining that the first platform message is associated with the first topic using the plurality of topics and at least a portion of the additional information, wherein the first topic is an initial classification of the first platform message, generating a recommendation for at least one account based on the second determination, and providing the recommendation to at least one account.

Type: Grant

Filed: October 8, 2021

Date of Patent: March 7, 2023

Assignee: Twitter, Inc.

Inventor: Alek Kolcz

Event producer system of a messaging platform for delivering real-time messages

Patent number: 11580165

Abstract: This disclosure relates to streaming real-time messages over time to client applications according to query subscriptions that match content from a large stream of messages exchanged on a messaging platform in a manner that increases the speed of

message delivery, effectively controls the management of computer resources to handle the fluctuation of the number of active query subscriptions, and/or increases the security of matching the query subscriptions against messages generated from the perspective of the authors while delivering those messages in real-time from the perspective of the users that initiated the query subscriptions.

Type: Grant

Filed: October 30, 2019

Date of Patent: February 14, 2023

Assignee: Twitter, Inc.

Inventors: Rishi Renjith, Mirela Anghel, Kevin Goodier, George Leontiev, Daithi O Crualaoich, Tom Ashworth, Sol Plant, Andreas Savvides, Guillaume Marty, Ralph Cowling, Leonardo Andres Garcia Crespo

Search infrastructure

Patent number: 11580176

Abstract: A system for real-time search, including: a set of partitions, each including a set of segments, each segment corresponding to a time slice of messages posted to the messaging platform, and a real-time search engine configured to receive a search term in parallel with other partitions in set the set of partitions, and search at least one of the set of segments in reverse chronological order of the corresponding time slice to identify document identifiers of messages containing the search term; and a search fanout module configured to: receive a search query including the search term; send the search term to each of the set of partitions for parallel searching; and return, in response to the search query, at least one of the identified document identifiers of messages containing the search term.

Type: Grant

Filed: May 18, 2020

Date of Patent: February 14, 2023

Assignee: Twitter, Inc.

Inventors: Michael Busch, Samuel Luckenbill, Brian Larson, Patrick J. Lok, Krishna Gade, Francesco G. Callari, Ugo Di Girolamo

Feature Switching Kits

Publication number: 20230030604

Abstract: A system and method for feature switching in software applications. A feature switching action (FSA) is received and at least one user device is identified based on the received FSA. At least one feature switching instruction (FSI) is generated based on the

received FSA and the FSI is sent to at least one of the identified user devices. A feature switching instruction response (FSIR) is received from each user device that received a FSI and a feature switching action response (FSAR) is generated based on the received FSIRs.

Type: Application

Filed: July 18, 2022

Publication date: February 2, 2023

Applicant: Twitter, Inc.

Inventors: Wayne Chang, Jeffrey H. Seibert, JR.

Determining whether a user in a social network is an authority on a topic

Patent number: 11567947

Abstract: A method involving obtaining a first plurality of topic groups (TGs), each having a membership of accounts, identifying a first plurality of accounts as authorities for an expertise topic, obtaining a second plurality of TGs with a number of accounts as members, wherein the first plurality of TGs comprises the second plurality of TGs, identifying a first frequent account which is a member in at least one of the second plurality of TGs, adding the first frequent account to the authorities of the expertise topic to obtain a second plurality of accounts as the authorities of the expertise topic, determining a third plurality of TGs in which a second number of accounts from the second plurality of accounts are members, determining that another frequent account is a member in one of the third plurality of TGs, and obtaining a ranking of accounts that are an authority on the expertise topic.

Type: Grant

Filed: March 26, 2021

Date of Patent: January 31, 2023

Assignee: Twitter, Inc.

Inventor: Alek Kolcz

Organizing self-replying messages

Patent number: 11558333

Abstract: Methods and systems for generating, identifying, and displaying message threads on a social messaging platform. One of the methods includes receiving a first and second messages posted to a social messaging platform by a user account; determining whether the second message is a reply to the first message posted by the user account; in response, determining if the first message is part of an existing message thread; in response to determining that the first message is not part of an existing thread, assigning a new thread identifier to both the first message and the second message, the thread

identifier associating both messages with a new thread; in response to determining that the first message is part of an existing thread, assigning an existing thread identifier obtained from the first message to the second message.

Type: Grant

Filed: February 22, 2021

Date of Patent: January 17, 2023

Assignee: Twitter, Inc.

Inventors: Michael Cvet, Elif Dede, Tommy Chong, Goran Peretin, Michael J. Matczynski

Messaging-enabled unmanned aerial vehicle

Patent number: 11556123

Abstract: An unmanned aerial vehicle (UAV) carries a camera, sends data from the camera, and receives commands. The UAV is connected to a messaging platform. Pictures or video clips received from the UAV are selected and placed in messages broadcast by an account associated with the UAV. Video footage from the camera is live-streamed in a card-type message. Account holders of the messaging platform may control the UAV with commands embedded in messages and directed towards an account associated with the UAV. Controllable elements of the UAV include UAV location, camera orientation, camera subject, UAV-mounted lighting, a UAV-mounted display, a UAV-mounted projector, UAV-mounted speakers, and a detachable payload. UAV control may be determined through democratic means. Some UAV functionality may be triggered through aggregated engagements on the messaging platform. The UAV may include a display screen and/or a microphone to provide for telepresence or interview functionality.

Type: Grant

Filed: June 29, 2020

Date of Patent: January 17, 2023

Assignee: Twitter, Inc.

Inventors: Ya-Ting Wang, Wayne Robins

Method and system for generating a geocode trie and facilitating reverse geocode lookups

Patent number: 11550826

Abstract: A method and system generates a model of a geographic area for use in identifying locations of the geographic area. A set of variably sized tiles is defined for each of a set of overlapping geometries in the geographic area. Each of the variably sized tiles is defined by a geohash, where the size of the tile is dependent on a granularity of the geohash. A geocode trie structure representing the variably sized tiles can be constructed

and used to map one or more provided location coordinates to at least one of the geometries represented by the tiles.

Type: Grant
Filed: July 30, 2019
Date of Patent: January 10, 2023
Assignee: Twitter, Inc.
Inventors: Jonathan D. Simms, Dale Harrison, Raghav Chandra, Guy Dickinson

User-defined message timelines

Patent number: 11552919

Abstract: Methods, systems, and apparatus, including computer programs encoded on computer storage media, for creating and managing custom timelines. One of the methods includes receiving, from a user using a user account of a social messaging platform, input to a user interface displaying a message timeline of a social messaging platform, the user input requesting that the platform save a first message from the message timeline and, in response, saving the message to a custom timeline of the user account, wherein saving the message to the custom timeline includes associating with the custom timeline an identifier that identifies the first message; monitoring engagements by one or more other accounts with the first message with respect to one or more notification criteria; and in response to determining that the monitored engagements satisfy a trigger condition, providing a notification to the user account associated with the first message through the custom timeline.

Type: Grant
Filed: September 28, 2018
Date of Patent: January 10, 2023
Assignee: Twitter, Inc.
Inventors: Jesar Shah, David Gasca, Tina Koyama, Eric Frohnhoefer, Svetlana Nelson, Evan Sobkowicz, Kate Lee, Mateusz Dzwonek, Kiyotoshi Yamauchi, Adam Cummings, Angad Singh

Real time analyses using common features

Patent number: 11550804

Abstract: A messaging system provides recommendations of content that account holders of the messaging system might be interested in engaging with. In order to determine what to recommend, the messaging system generates a model of account holder engagement behavior organized by type of engagement. The model parameters are trained on differences between expected engagement behavior based on past data and actual

engagement behavior, and include a set of common factor matrices that are trained using data from more than on engagement type. As a consequence, engagement behavior of other account holders with respect to other types of engagements different than the one sought to be recommended serves as a partial basis for determining what engagements of the sought-after type are recommended.

Type: Grant
Filed: October 5, 2020
Date of Patent: January 10, 2023
Assignee: Twitter, Inc.
Inventors: Venumadhav Satuluri, Sebastian Scheiter, Reza Bosagh Zadeh

Conversational Targeted Content
Publication number: 20230005026

Abstract: Techniques of the disclosure are directed to sending and receiving messages that allow for content providers to interact with potential recipients and customers. An information distribution system may receive a first message from a content provider via a first client device that includes targeted content, such as a string of characters, an image, a video, and/or some other form of media. The targeted content may also include tags, such as hashtags, which identify or otherwise associate a particular topic with the user-generated content. Further, the targeted content may include a selectable graphical user interface element that a user reading the content may interact with on a second client device. If the user selects the selectable graphical user interface element, the information distribution system may generate a custom message that may be sent on behalf of the user, which may also include a tag, such as a hashtag.

Type: Application
Filed: September 12, 2022
Publication date: January 5, 2023
Applicant: Twitter, Inc.
Inventor: Andrew Bragdon

Method and System for Maintaining Storage Device Failure Tolerance in a Composable Infrastructure
Publication number: 20220413976

Abstract: Systems (e.g. data centers) having composable infrastructure, in which computing devices (e.g., servers) access disk drives organized into storage groups over a network or other communications mechanism, devices for implementing such systems, methods for configuring and operating such systems, and a computer readable medium

which stores (in non-transitory fashion) code for performing any embodiment of the inventive method or steps thereof. Typically, the storage groups are determined such that the drives in each storage group have at least one coupled failure mechanism, and the drives are allocated to servers (and typically also, data items are placed in the servers) in accordance with storage group membership of the drives. In some embodiments, data from a server is stored in redundant fashion on at least two of the drives, e.g., in accordance a RAID technique.

Type: Application
Filed: August 30, 2022
Publication date: December 29, 2022
Applicant: Twitter, Inc.
Inventors: James G. Hanko, Christopher Unkel, Jean-Francois Remy

Difference metric for machine learning-based processing systems
Patent number: 11537869

Abstract: Systems and methods provide a learned difference metric that operates in a wide artifact space. An example method includes initializing a committee of deep neural networks with labeled distortion pairs, iteratively actively learning a difference metric using the committee and psychophysics tasks for informative distortion pairs, and using the difference metric as an objective function in a machine-learned digital file processing task. Iteratively actively learning the difference metric can include providing an unlabeled distortion pair as input to each of the deep neural networks in the committee, a distortion pair being a base image and a distorted image resulting from application of an artifact applied to the base image, obtaining a plurality of difference metric scores for the unlabeled distortion pair from the deep neural networks, and identifying the unlabeled distortion pair as an informative distortion pair when the difference metric scores satisfy a diversity metric.

Type: Grant
Filed: December 27, 2017
Date of Patent: December 27, 2022
Assignee: Twitter, Inc.
Inventors: Ferenc Huszar, Lucas Theis, Pietro Berkes

Inter-application delegated authentication
Patent number: 11539698

Abstract: Disclosed is a system for delegating authentication of an untrusted application executing on a client device. For delegated authentication, an untrusted application relies

on a trusted application executing in the same environment for authentication purposes. The delegated authentication process avoids requiring the user of the untrusted application to provide authentication credentials. The disclosed system for delegating authentication enables any trusted application executing in the same computing environment to authenticate the untrusted application.

Type: Grant
Filed: May 3, 2021
Date of Patent: December 27, 2022
Assignee: Twitter, Inc.
Inventors: Jeffrey Seibert, Jr., Michael Ducker

Distributed dataset modification, retention, and replication
Patent number: 11531484
Abstract: Methods, systems, and apparatus, including computer programs encoded on computer storage media, for data retention and modification. One of the methods includes dividing partitions into a set of generations according to a retention policy; accumulating modification and deletion events that define changes to be applied to data of the distributed dataset; and when a triggering event occurs for a triggered generation in the set of generations, rolling an oldest partition out of the triggered generation, the rolling comprising: if the oldest partition has reached the end of a retention period for the dataset, marking the oldest partition for deletion in the triggered generation; otherwise: creating a new partition corresponding to the data of the oldest partition, wherein the data is cleaned using a scrubbing process; adding the new partition to a next generation in the set of generations; and marking the oldest partition for deletion in the triggered generation.
Type: Grant
Filed: April 12, 2021
Date of Patent: December 20, 2022
Assignee: Twitter, Inc.
Inventors: Chris Trezzo, Jason Sprowl, Joep Rottinghuis

Automatic positioning of content items in a scrolling display for optimal viewing of the items
Patent number: 11531460
Abstract: Systems and methods are described that include providing, on a touchscreen display of an electronic device, a stream of content items, at least some of which are associated with a corresponding display anchor. Inputs are detected at the touchscreen display and the inputs are associated with a scroll speed. The scroll speed may be based on a detected distance between the inputs on the touchscreen and an elapsed time between at

least two of the inputs. In response to determining a lack of input for a predefined time period, a display anchor can be determined and selected. The display anchor may correspond to a content item to be used as a pause location for the stream. The scrolling of the stream of content items can be paused at the pause location to use the selected display anchor to display the content item in a top viewable portion of the display.

Type: Grant

Filed: December 10, 2020

Date of Patent: December 20, 2022

Assignee: Twitter, Inc.

Inventors: Simon Corsin, Richard Arnold, Michel Loenngren, Kevin Markman, Jason J. Mante, Adam Feldman

Establishing a trust association

Patent number: 11533356

Abstract: A method for establishing a trust association includes receiving, by a server, a request to associate a web source with an account, the request having a link to the web source, and accessing, by the server, the web source in response to the request to associate. The method further includes locating, by the server and within the web source, a tag associated with the account, creating, by the server and in response to locating the tag within the web source, a trust association between the account and the web source, and providing, by the server, an indicating of the trust association for display in a user interface of a client device.

Type: Grant

Filed: March 31, 2021

Date of Patent: December 20, 2022

Assignee: Twitter, Inc.

Inventor: Ben Ward

Machine learning for visual processing

Patent number: 11528492

Abstract: A method for developing an enhancement model for low-quality visual data, the method comprising the steps of receiving one or more sections of higher-quality visual data; and training a hierarchical algorithm. The hierarchical algorithm is operable to increase the quality of one or more sections of lower-quality visual data so as to substantially reproduce the one or more sections of higher-quality visual data. The hierarchical algorithm is then outputted.

Type: Grant

Live video stream sharing
Abstract: Systems and methods provide live broadcasts with real-time feedback from viewers using mobile computing devices. An example method includes providing a live feed broadcast from a source mobile device to a plurality of viewing devices, receiving, during the live feed broadcast, a plurality of feedback signals, each feedback signal being from at least one of the plurality of viewing devices, and associating each feedback signal with a respective time in the live feed broadcast. The method further includes providing, for each feedback signal in the plurality of feedback signals, an indication of the feedback signal to the source mobile device and to each viewing device of the plurality of viewing devices, the indication being used to display a symbol representing the feedback signal as an animation, the animation moving the symbol on a path during display and lasting for a predetermined time subsequent to the respective time.

Hard and soft ranking messages of conversation graphs in a messaging platform
Abstract: A method for ranking messages of conversation graphs in a messaging platform includes classifying messages of a conversation graph into a plurality of sections based on content quality of the messages, where the plurality of sections include a first section and a second section. The first section has messages from the conversation graph determined as higher quality than messages of the second section. The method includes determining a plurality of predictive outcomes for each of a plurality of messages of the conversation graph using predictive models, ranking the messages of the first section based on the predictive outcomes for the messages of the first section, and transmitting at least a subset

of the messages of the first section to be rendered on a client application according to the rank.
Type: Grant
Filed: December 20, 2019
Date of Patent: November 29, 2022
Assignee: Twitter, Inc.
Inventors: Rohit Jain, Arvind Thiagarajan

Device independent message distribution platform
Patent number: 11502985
Abstract: An example system for device-independent point to multipoint communication is configured to receive a message addressed to one or more destination users, the message type being, for example, Short Message Service (SMS), Instant Messaging (IM), E-mail, web form input, or Application Program Interface (API) function call. The system also is configured to determine information about the destination users, the information comprising preferred devices and interfaces for receiving messages, the information further including message receiving preferences. The system applies rules to the message based on destination user information to determine the message endpoints, the message endpoints being, for example, Short Message Service (SMS), Instant Messaging (IM), E-mail, web page output, or Application Program Interface (API) function call. The system translates the message based on the destination user information and message endpoints and transmits the message to each endpoint of the message.
Type: Grant
Filed: June 11, 2020
Date of Patent: November 15, 2022
Assignee: TWITTER, INC.
Inventors: Jack Dorsey, Christopher Isaac Stone

Trends in a messaging platform
Patent number: 11500908
Abstract: A method of operating a messaging platform, including: obtaining, for a first profile, a first and a second topic of interest, a first intra-profile (IP) weight for the first topic of interest, and a second IP weight for the second topic of interest; obtaining a first plurality of trending entities for the first topic and a first plurality of intra-topic (IT) weights for the first plurality of trending entities; obtaining a second plurality of trending entities for the second topic and a second plurality of IT weights for the second plurality of trending entities; selecting a subset of the first plurality of trending entities and the second

plurality of trending entities based on the first IP weight, the second IP weight, the first plurality of IT weights, and the second plurality of IT weights; and sending content associated with the subset for display to a user of the first profile.

Type: Grant

Filed: March 12, 2020

Date of Patent: November 15, 2022

Assignee: Twitter, Inc.

Inventors: Rion Langley Snow, Gilad Avraham Mishne

Promoting time-based content through social networking systems

Patent number: 11483377

Abstract: Time-based media is distributed and promoted in a social networking environment. Accounts of a social networking system author social media content items (SMCIs) from which a social networking system infers relevance of content to users of those accounts. Content distributors submit time-based media content to the social networking system, which creates distributor SMCIs containing the time-based media content. Accounts are identified to receive distributor SMCIs based on SMCIs previously authored by those accounts as well as identifying information and the subject of the SMCI. Content promoters may add promotional material to distributor SMCIs, which the social networking service sends to additional accounts.

Type: Grant

Filed: June 16, 2020

Date of Patent: October 25, 2022

Assignee: Twitter, Inc.

Inventors: Glenn Brown, Mike Park, Je Carr

Dynamically controlling messaging platform client-side and server-side behavior

Patent number: 11477145

Abstract: Methods, systems, and apparatus, including computer programs encoded on computer storage media, for performing dynamic control of social messaging platform client-side and server-side behavior according to current and historical environmental, service, and application conditions.

Type: Grant

Filed: June 28, 2021

Date of Patent: October 18, 2022

Assignee: Twitter, Inc.

Inventor: Nolan Daniel O'Brien

Graph-based data storage for real-time content suggestions
Patent number: 11468069

Abstract: The present invention relates generally to messaging platforms, and relates more particularly to data storage such that random sampling can be accomplished in real-time in messaging platforms. Aspects of the present invention include storing a bipartite graph with associations of two node types. The graph can be stored as a power law graph. The graph can be used to provide real-time content recommendations in a messaging platform. The content recommendations can be provided using random sampling of the node types stored in the graph.

Type: Grant
Filed: March 23, 2020
Date of Patent: October 11, 2022
Assignee: Twitter, Inc.
Inventors: Aneesh Sharma, Jerry Jiang

Automated social message stream population
Patent number: 11461305

Abstract: A messaging system automatically populates a stream of messages using only a seed selected by the requesting account holder. In one embodiment, the seed includes the streams of one or more of the "top" accounts of the messaging system . Here, "top" is according to any one of a number of different metrics stored in the messaging system. With knowledge of the seed, the messaging system automatically populates a stream for the requesting account holder, without requiring any other input. As a result, an account holder is provided with a fully functioning stream with very little effort or knowledge required on their part.

Type: Grant
Filed: July 6, 2021
Date of Patent: October 4, 2022
Assignee: Twitter, Inc.
Inventors: Michael Ben Fleischman, Matthew Miller, Richard Douglas Whitcomb, Jr., Mark Watabe, Anthony Sciola

Looping audio-visual file generation based on audio and video analysis
Patent number: 11456017

Abstract: In one general aspect, a method can include receiving a video loop portion included in a video file and receiving an audio loop portion included in an audio file. The method can include analyzing at least a portion of the audio file based on a musical characteristic and identifying a plurality of segment locations within the audio file based on the analyzing where the plurality of segment locations define a plurality of audio segments of the audio file. The method can also include modifying the video loop portion based on one of the plurality of segment locations in the audio file.
Type: Grant
Filed: September 22, 2020
Date of Patent: September 27, 2022
Assignee: Twitter, Inc.
Inventors: Richard J. Plom, Jason J. Mante, Ryan Swigart, Mikhail Kaplinskiy

Reconciliation of disjoint user identifier spaces
Patent number: 11449888
Abstract: Two different user spaces can be mapped to each other based on one or more categories of information that are common to both. The mapping is based on hash values generated by applying the same hash function to the same information of the categories of information that identifies users in each user space.
Type: Grant
Filed: December 17, 2019
Date of Patent: September 20, 2022
Assignee: Twitter, Inc.
Inventor: Jeffrey Winner

Conversational targeted content
Patent number: 11443348
Abstract: Techniques of the disclosure are directed to sending and receiving messages that allow for content providers to interact with potential recipients and customers. An information distribution system may receive a first message from a content provider via a first client device that includes targeted content, such as a string of characters, an image, a video, and/or some other form of media. The targeted content may also include tags, such as hashtags, which identify or otherwise associate a particular topic with the user-generated content. Further, the targeted content may include a selectable graphical user interface element that a user reading the content may interact with on a second client device. If the user selects the selectable graphical user interface element, the information

distribution system may generate a custom message that may be sent on behalf of the user, which may also include a tag, such as a hashtag.

Type: Grant

Filed: January 5, 2017

Date of Patent: September 13, 2022

Assignee: Twitter, Inc.

Inventor: Andrew Bragdon

Content Carousel in a Social Media Timeline

Publication number: 20220284054

Abstract: Techniques of the disclosure are directed to a computing device creating and outputting, for display at client devices accessing a social media platform, targeted content. The computing device may receive candidate messages composed by users of a group of client devices, where the candidate messages each include a reference to the requisite product, brand, or market. If a candidate message has a determined interest score that satisfies a threshold interest score, the computing device includes the candidate message into a group of brand messages. The computing device may then send the targeted message to be output for display at another group of client devices, where the targeted message includes both an original portion and a carousel portion. The carousel portion includes a group of transitional windows, where each transitional window includes one of the brand messages from the group of brand messages.

Type: Application

Filed: February 9, 2022

Publication date: September 8, 2022

Applicant: Twitter, Inc.

Inventor: Andrew Bragdon

Selection and presentation of unviewed messages

Patent number: 11436234

Abstract: A method for message selection, including: receiving a request for unviewed messages, the request identifying a context account, ranking the set of unviewed messages according to ranking criteria, where the ranking criteria is used to rank each of the set of unviewed messages based on an engagement history between the context account and an authoring account of the unviewed messages; generating, based on ranking the set of unviewed messages, a result set identifying a subset of the set of unviewed messages, and providing the result set in response to the request.

Type: Grant

Filed: March 25, 2019
Date of Patent: September 6, 2022
Assignee: Twitter, Inc.
Inventors: Mircea-Bogdan Pasoi, Cristian-George Strat, Mihai Claudiu Toader

Fast loading and display of image previews
Patent number: 11438399
Abstract: Methods, systems, and apparatus, including computer programs encoded on computer storage media, for providing images in the form of tiny previews in messages of a message stream sent to user devices in an online social messaging platform.
Type: Grant
Filed: May 11, 2020
Date of Patent: September 6, 2022
Assignee: Twitter, Inc.
Inventor: Nolan Daniel O'Brien

Method and system for maintaining storage device failure tolerance in a composable infrastructure
Patent number: 11436113
Abstract: Systems (e.g. data centers) having composable infrastructure, in which computing devices (e.g., servers) access disk drives organized into storage groups over a network or other communications mechanism, devices for implementing such systems, methods for configuring and operating such systems, and a computer readable medium which stores (in non-transitory fashion) code for performing any embodiment of the inventive method or steps thereof. Typically, the storage groups are determined such that the drives in each storage group have at least one coupled failure mechanism, and the drives are allocated to servers (and typically also, data items are placed in the servers) in accordance with storage group membership of the drives. In some embodiments, data from a server is stored in redundant fashion on at least two of the drives, e.g., in accordance a RAID technique.
Type: Grant
Filed: June 28, 2018
Date of Patent: September 6, 2022
Assignee: Twitter, Inc.
Inventors: James G. Hanko, Christopher Unkel, Jean-Francois Remy

Managing query subscription renewals in a messaging platform

Patent number: 11429669

Abstract: This disclosure relates to streaming real-time messages over time to client applications according to query subscriptions that match content from a large stream of messages exchanged on a messaging platform in a manner that increases the speed of message delivery, effectively controls the management of computer resources to handle the fluctuation of the number of active query subscriptions, and/or increases the security of matching the query subscriptions against messages generated from the perspective of the authors while delivering those messages in real-time from the perspective of the users that initiated the query subscriptions.

Type: Grant

Filed: October 30, 2019

Date of Patent: August 30, 2022

Assignee: Twitter, Inc.

Inventors: Rishi Renjith, Mirela Anghel, Kevin Goodier, George Leontiev, Daithi O Crualaoich, Tom Ashworth, Sol Plant, Andreas Savvides, Guillaume Marty, Ralph Cowling, Leonardo Andres Garcia Crespo

Display screen with graphical user interface for live video sharing

Patent number: D968419

Type: Grant

Filed: December 17, 2018

Date of Patent: November 1, 2022

Assignee: Twitter, Inc.

Inventors: Tyler Jan Hansen, Kayvon B. Beykpour, Joseph Harold Bernstein, Aaron William Wasserman, Nils Victor Rocine, Alexander Kayvon Khoshnevissan, Geraint Davies

Display screen with graphical user interface for live broadcasting

Patent number: D970534

Type: Grant

Filed: October 18, 2021

Date of Patent: November 22, 2022

Assignee: Twitter, Inc.

Inventor: Veronika Wu

Display screen with graphical user interface for conversations

Patent number: D971944

Type: Grant

Filed: January 26, 2022

Date of Patent: December 6, 2022

Assignee: Twitter, Inc.

Inventor: Lisa Ding

Display screen with graphical user interface for live broadcasting

Patent number: D971953

Type: Grant

Filed: October 14, 2021

Date of Patent: December 6, 2022

Assignee: Twitter, Inc.

Inventor: Veronika Wu

Display screen with graphical user interface for live broadcasting

Patent number: D971954

Type: Grant

Filed: October 15, 2021

Date of Patent: December 6, 2022

Assignee: Twitter, Inc.

Inventor: Veronika Wu

Display screen with graphical user interface for live broadcasting

Patent number: D972585

Type: Grant

Filed: October 13, 2021

Date of Patent: December 13, 2022

Assignee: Twitter, Inc.

Inventor: Veronika Wu

Display screen with graphical user interface for live broadcasting

Patent number: D972586

Type: Grant

Filed: October 14, 2021

Date of Patent: December 13, 2022

Assignee: Twitter, Inc.

Inventor: Veronika Wu

Display screen with graphical user interface for live broadcasting
Patent number: D972587
Type: Grant
Filed: March 10, 2022
Date of Patent: December 13, 2022
Assignee: Twitter, Inc.
Inventor: Veronika Wu

Display screen with graphical user interface for viewing live events in a social media application
Patent number: D973075
Type: Grant
Filed: December 30, 2019
Date of Patent: December 20, 2022
Assignee: Twitter, Inc.
Inventors: Charles Warren, Sara Haider

Display screen with graphical user interface for live broadcasting
Patent number: D973089
Type: Grant
Filed: October 14, 2021
Date of Patent: December 20, 2022
Assignee: Twitter, Inc.
Inventor: Veronika Wu

Display screen with graphical user interface for live broadcasting
Patent number: D973704
Type: Grant
Filed: October 14, 2021
Date of Patent: December 27, 2022
Assignee: Twitter, Inc.
Inventor: Veronika Wu

Display panel portion with a computer icon

Patent number: D976929

Type: Grant

Filed: December 3, 2021

Date of Patent: January 31, 2023

Assignee: Twitter, Inc.

Inventors: Mengqi Zhao, Marius-Andrei Danila, Tianhai Hu, Jan Castor, Jonathan Reis

Display screen with graphical user interface
Patent number: D978895

Type: Grant

Filed: August 24, 2021

Date of Patent: February 21, 2023

Assignee: Twitter, Inc.

Inventors: Sasank Reddy, Paul Stamatiou, Sean Thompson

Display screen with graphical user interface
Patent number: D981440

Type: Grant

Filed: August 24, 2021

Date of Patent: March 21, 2023

Assignee: Twitter, Inc.

Inventors: Sasank Reddy, Paul Stamatiou, Sean Thompson

Display screen with graphical user interface for video conferencing
Patent number: D981441

Type: Grant

Filed: November 1, 2021

Date of Patent: March 21, 2023

Assignee: Twitter, Inc.

Inventor: Veronika Wu