



US 20240223209A1

(19) **United States**

(12) **Patent Application Publication**
QUINLAN-GALPER

(10) **Pub. No.: US 2024/0223209 A1**

(43) **Pub. Date: Jul. 4, 2024**

(54) **LOSSY COMPRESSION OF TIME SERIES DATA**

(52) **U.S. Cl.**

CPC **H03M 7/3059** (2013.01)

(71) Applicant: **Google LLC**, Mountain View, CA (US)

(57)

ABSTRACT

(72) Inventor: **Jeffrey Max QUINLAN-GALPER**,
Issaquah, WA (US)

(73) Assignee: **Google LLC**, Mountain View, CA (US)

(21) Appl. No.: **18/397,744**

(22) Filed: **Dec. 27, 2023**

Related U.S. Application Data

(60) Provisional application No. 63/436,049, filed on Dec. 29, 2022.

Publication Classification

(51) **Int. Cl.**

H03M 7/30 (2006.01)

A method includes obtaining time series data that includes a series of data points listed in temporal order. The method includes determining that a size of the time series data fails to satisfy a threshold size. In response, the method includes determining a range of the series of data points and determining, using the range of the series of data points, a respective score for each respective data point in the series of data points. The method also includes removing, using the respective scores for each data point in the series of data points, a plurality of data points from the series of data points. After removing the plurality of data points from the series of data points, the method includes determining an updated size of the series of data points and determining that the updated size of the series of data points satisfies the threshold size.

