



United States & Co-Plaintiff States v. Google LLC

Professor James Allan, Ph.D.

Ex. No.

PXRD016

1:20-cv-03010-APM

1:20-cv-03715-APM



Trial Testimony of Eric Lehman



Dr. Eric Lehman

Former Distinguished Software Engineer

Q. Navboost trains on about 13 months of user data; right?

A. That is my understanding. Now, the word "trains" here might be a little misleading. Navboost is not a machine learning system. It's just a big table. It says for this document -- sorry, for this search query, this document got two clicks. For this query, this document got three clicks, this -- and so on. And it's aggregated, and there's a little bit of extra data. But you can think of it as just a giant table.

Inverted Index

DOCUMENT 1

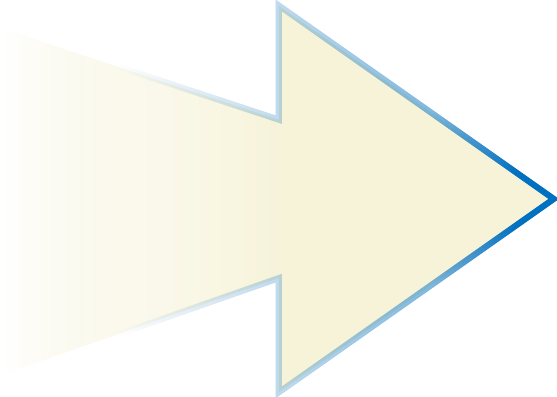
The bright blue butterfly hangs on the breeze

DOCUMENT 2

It's best to forget the great sky and to retire from the world

DOCUMENT 3

The need to search the bright blue sky



ID	TERM	DOCUMENTS
1	best	2
2	blue	1, 3
3	bright	1, 3
4	butterfly	1
5	breeze	1
6	forget	2
7	great	2
8	hangs	1
9	need	3
10	retire	2
11	search	3
12	sky	2, 3
13	wind	2