

Question Assumptions






airbnb

What are Seattle hosts like?

Whimsical Studio in Prime Loc...

← → ↺ Airbnb, Inc. [US] https://www.airbnb.com/rooms/12431572?checkin=03%2F17%2F2017&checkout=03%2F1... 🔍 ☆

 Search


Become a Host

No time to host?


Help

Sign Up

Log In




View Photos





Elena & AJ


Whimsical Studio in Prime Location

Seattle, WA, United States ★★★★★ 88

 Entire home/apt

 2 Guests

 Studio

 1 Bed



I'm a local Leasing Agent in Seattle & run a leasing company in town with my partner AJ. We love to travel and host folks from all around the nation & world. I discovered the AirBnB community a few years ago and fell in love! We have hosted & met so many amazing people through this community - I'm always excited for our next guest or trip!

+ More

Response rate: 100%

Response time: **within an hour**

678

Reviews



Verified


Contact host

Spa retreat in vibrant Greenwood

← → ↺

Airbnb, Inc. [US] https://www.airbnb.com/rooms/3543247?checkin=03%2F17%2F2017&checkout=03%2F18...

🔍 ☆ 📌 📺 📶 📶 📶 📶 📶



🔍 Search


Become a Host

No time to host?


Help

Sign Up

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View Photos





Jeffrey


Spa retreat in vibrant Greenwood

Seattle, WA, United States ★★★★★ 111

Entire home/apt

6 Guests

1 Bedroom

4 Beds


Spa retreat in vibrant Greenwo

← → ↺ Airbnb, Inc. [US] https://www.airbnb.com/rooms/3543247?checkin=03%2F17%2F2017&checkout=03%2F18... 🔍 ☆ 📌 📱 📺 📅 📧 📧 📧

\$150 Per Night

⚡ Instant Book

Your Host



Jeffrey

Seattle, Washington, United States · Joined in July 2014


My wife Ellen and I moved to Seattle from Minneapolis in 1989--so we pretty much say we are from Seattle at this point. I am a residential architect and builder. We bought a tiny house in the early nineties and we have been developing into our dream home in the city.

We love to road trip in our vintage vw bus, ride horses, sail, and spend as much time as possible outdoors.

Response rate: **100%**
Response time: **within an hour**

115

Reviews

Verified

Contact host

Sounds like topic modeling.

Non-negative Matrix Factorization

$$V = W \times H$$

Non-negative Matrix Factorization

$$V = W \times H$$

$$V = W \times H$$

Word-document
matrix

$$V = W \times H$$

Word-document
matrix

Word-feature
matrix

$$V = W \times H$$

Word-document
matrix

Word-feature
matrix

Feature-document
matrix

Word-document
matrix

\approx

Word-feature
matrix

X

Feature-document
matrix

Latent Dirichlet Allocation

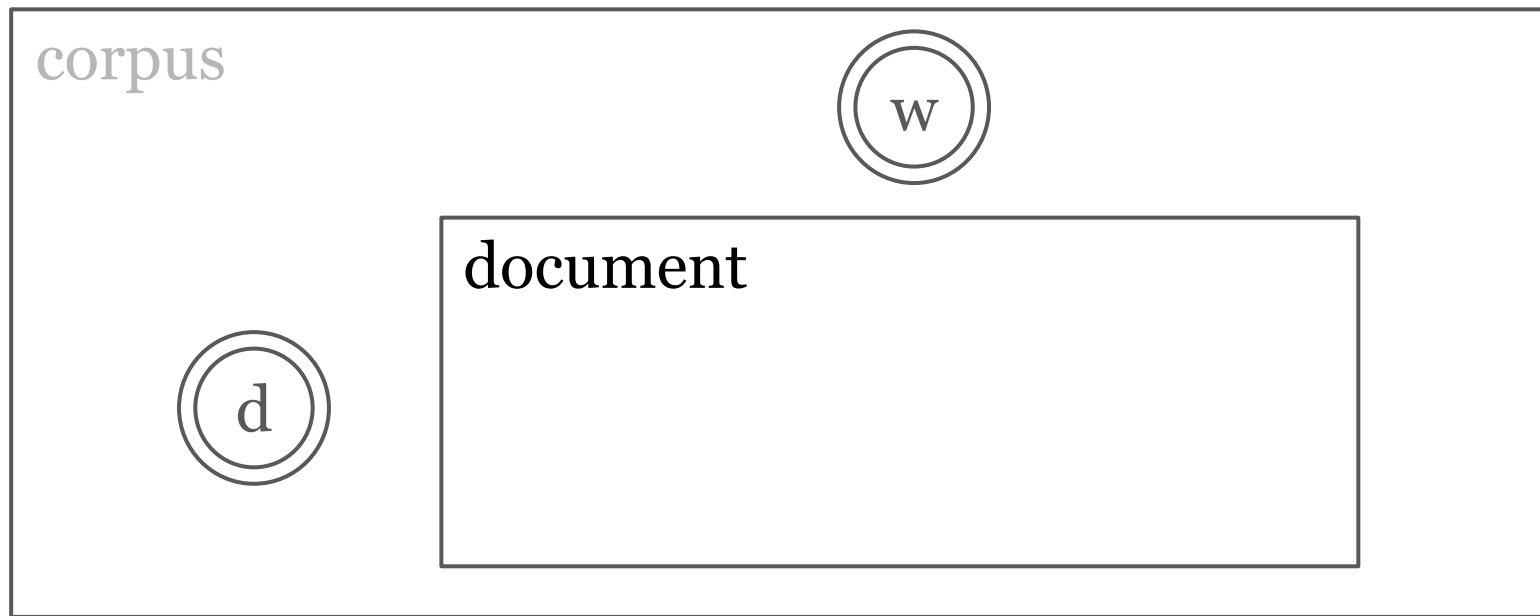
corpus

Latent Dirichlet Allocation

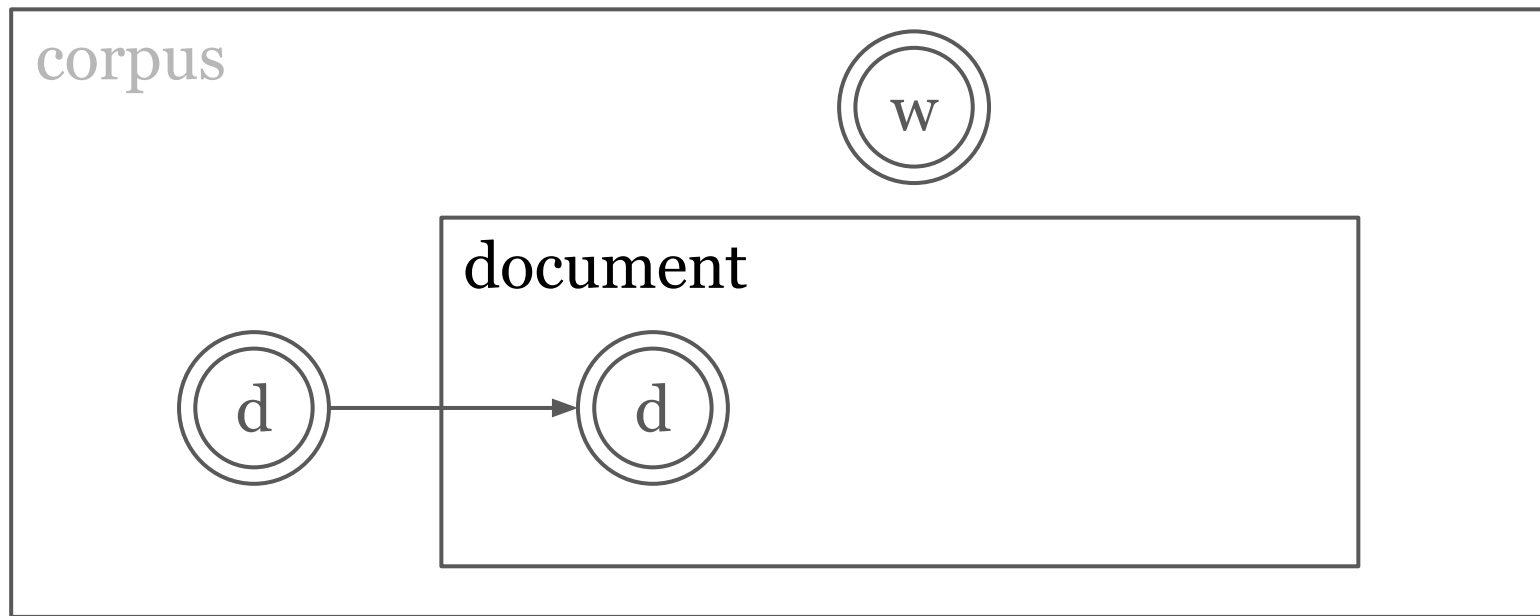
corpus



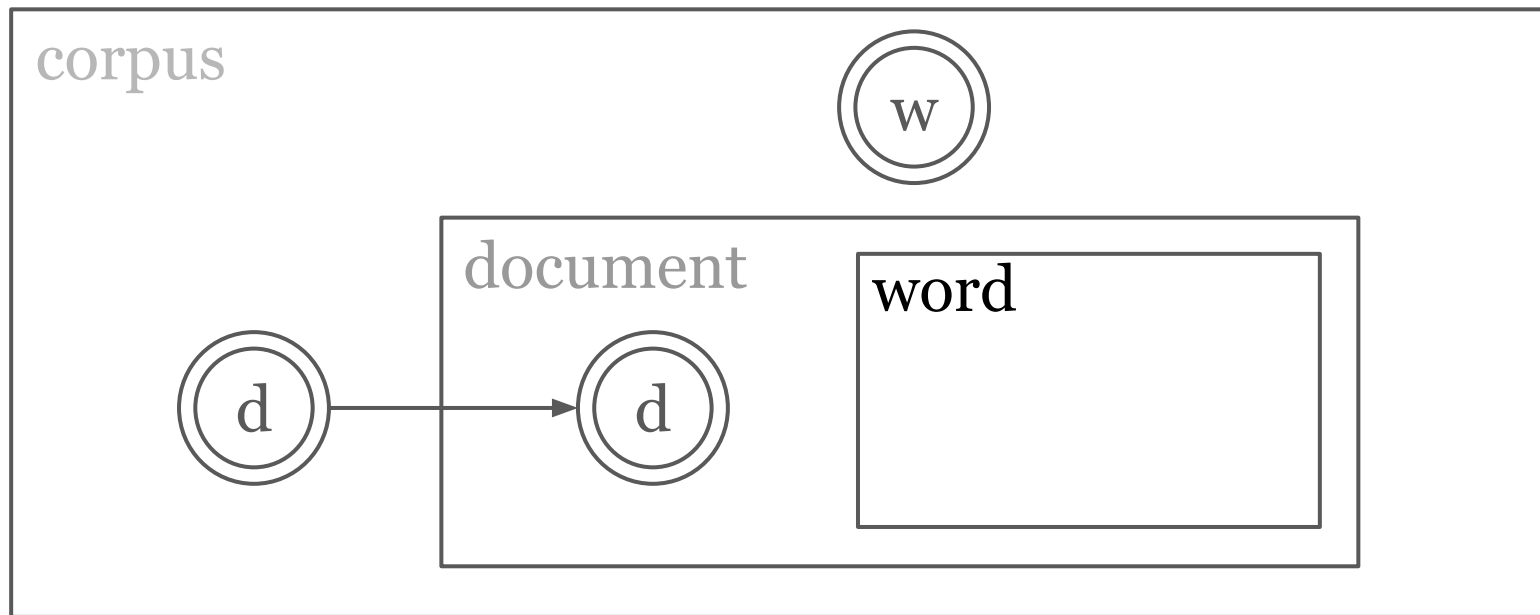
Latent Dirichlet Allocation



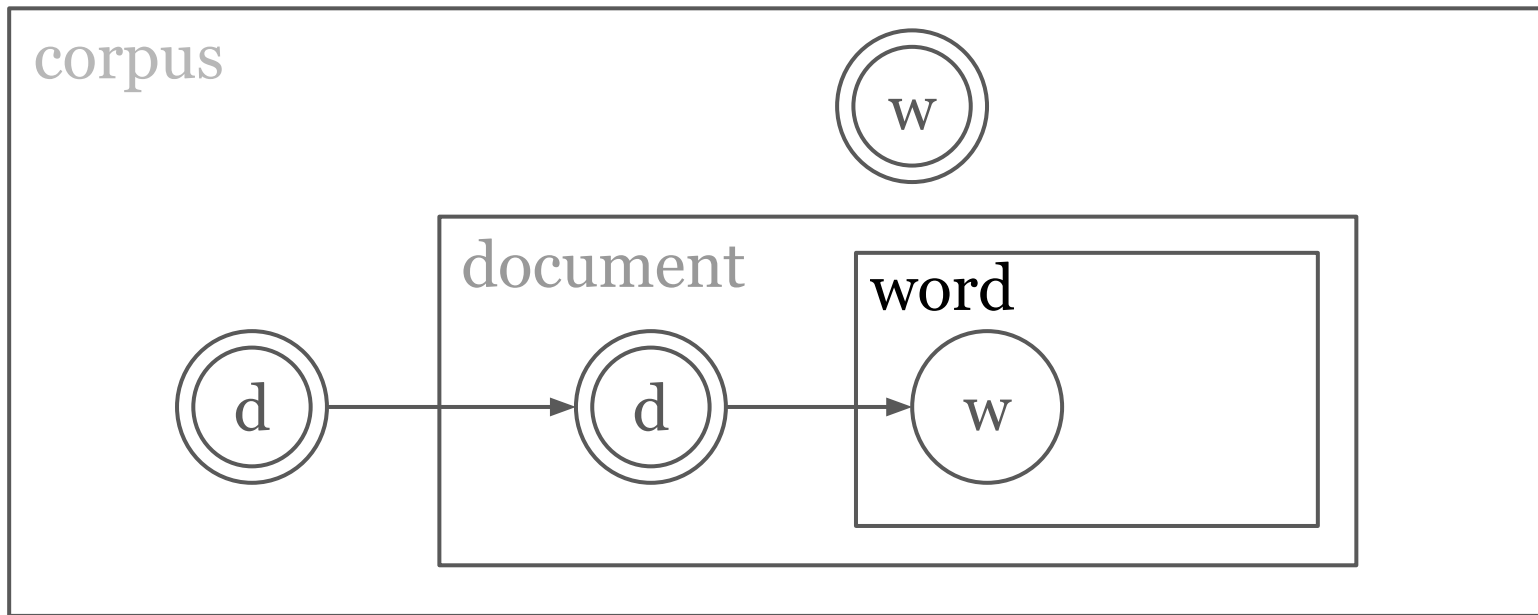
Latent Dirichlet Allocation



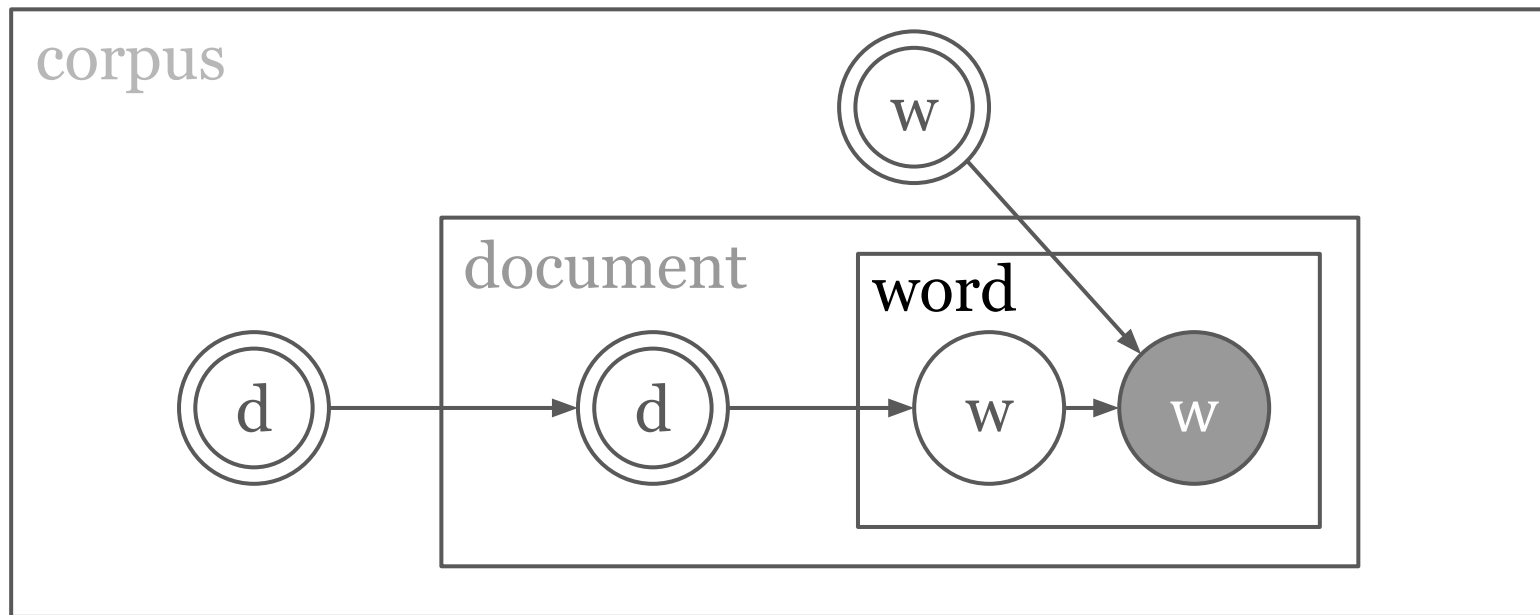
Latent Dirichlet Allocation



Latent Dirichlet Allocation



Latent Dirichlet Allocation



Latent Dirichlet Allocation

Deterministic

NMF

Stochastic

LDA

What is

NMF

What might be

LDA

The specifics.

2,000 documents, lemmatized

2,000 documents, lemmatized
Unigrams

2,000 documents, lemmatized
Unigrams
Bigrams

2,000 documents, lemmatized

Unigrams

Bigrams

At least 3 documents

2,000 documents, lemmatized
Unigrams
Bigrams
+ At least 3 documents

2,000 documents, lemmatized
Unigrams
Bigrams
+ At least 3 documents

4,300 unique tokens

12 topics*

12 topics*

**Some assembly required*

food
music
art
dance
wine
yoga

NMF

LDA

artsy

NMF

LDA

NMF

yoga
artist
practice
cup
respectful
earth
mother

LDA

hippies

NMF

LDA

NMF

anywhere
found
locate
bar
restaurant
bustle

LDA

NMF

?

LDA

Outdoorsy

NMF

Outdoorsy

LDA

hike
outdoors
ski
bike
sport
camp
run

NMF

hike
bike
art
play
music
ski
camp

LDA

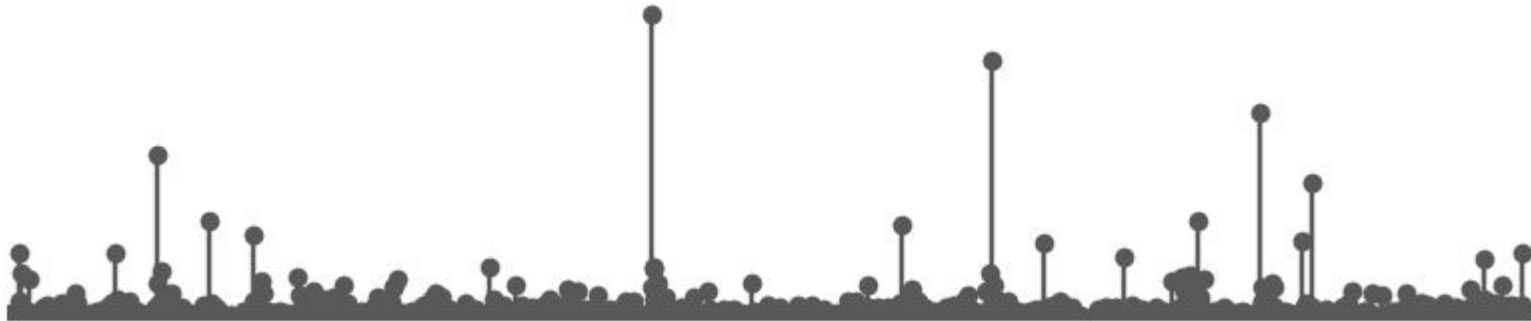
hike
outdoors
ski
bike
sport
camp
run

NMF

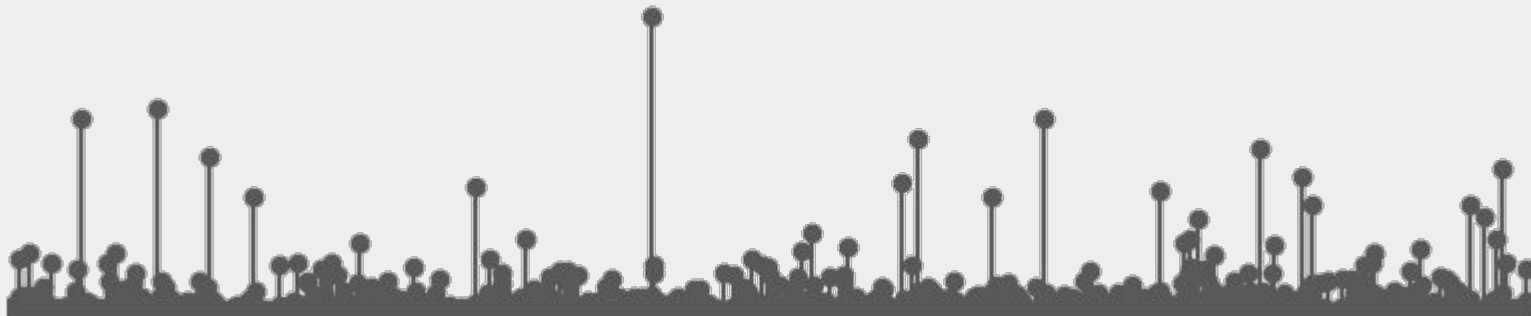
hike
bike
art
play
music
ski
camp

LDA

NMF

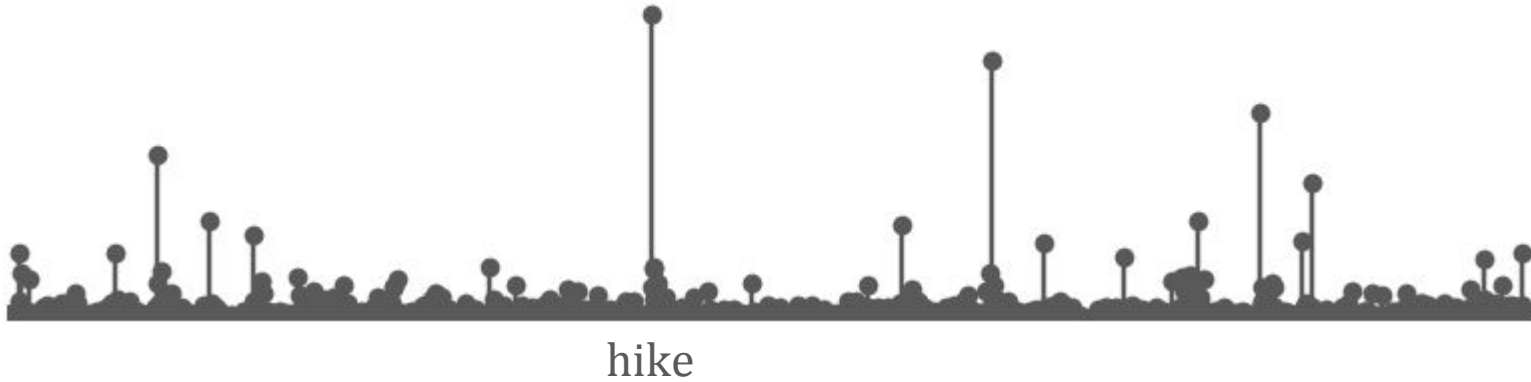


LDA

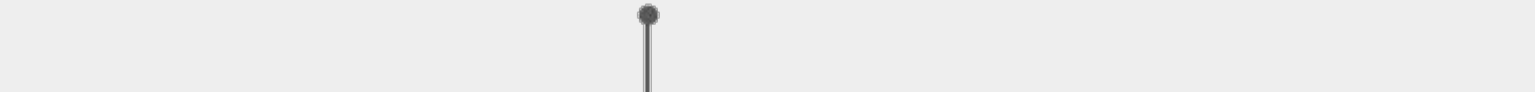


NMF

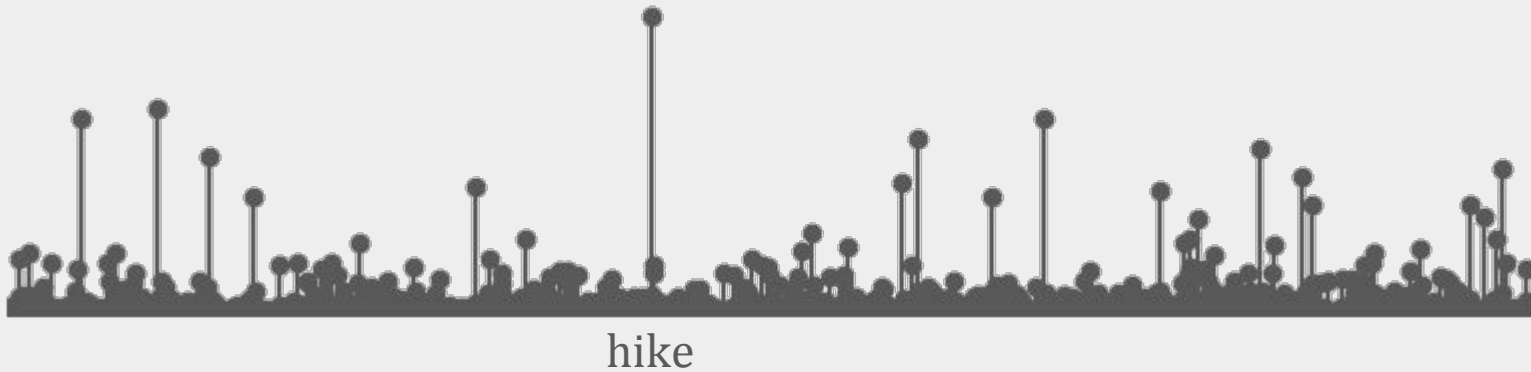
hike



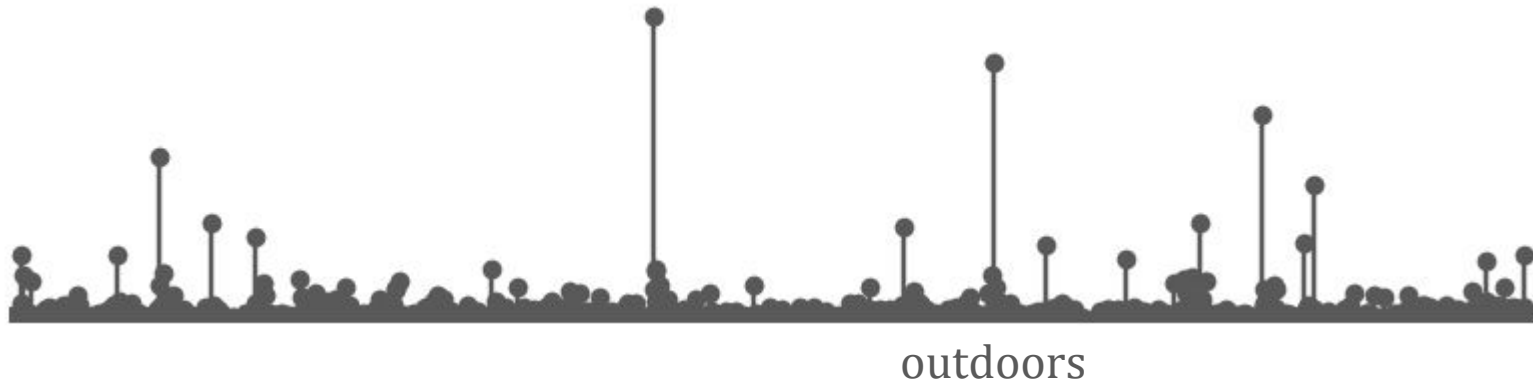
LDA



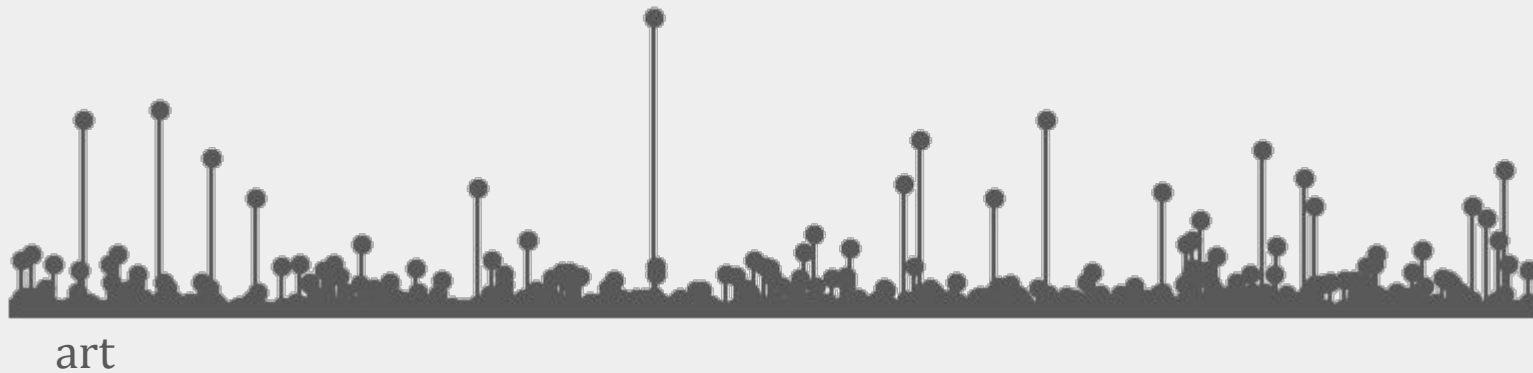
hike



NMF



LDA



Professional

NMF

Professional

LDA

young professional
business
meeting
company
working
technology

NMF

young professional
northwest
business
trail
beauty
Puget Sound

LDA

young professional
business
meeting
company
working
technology

NMF

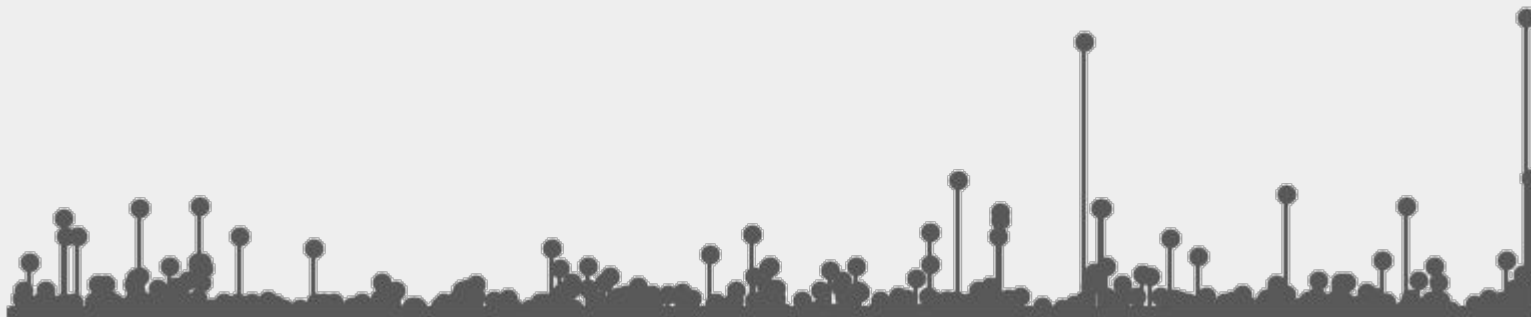
young professional
northwest
business
trail
beauty
Puget Sound

LDA

NMF



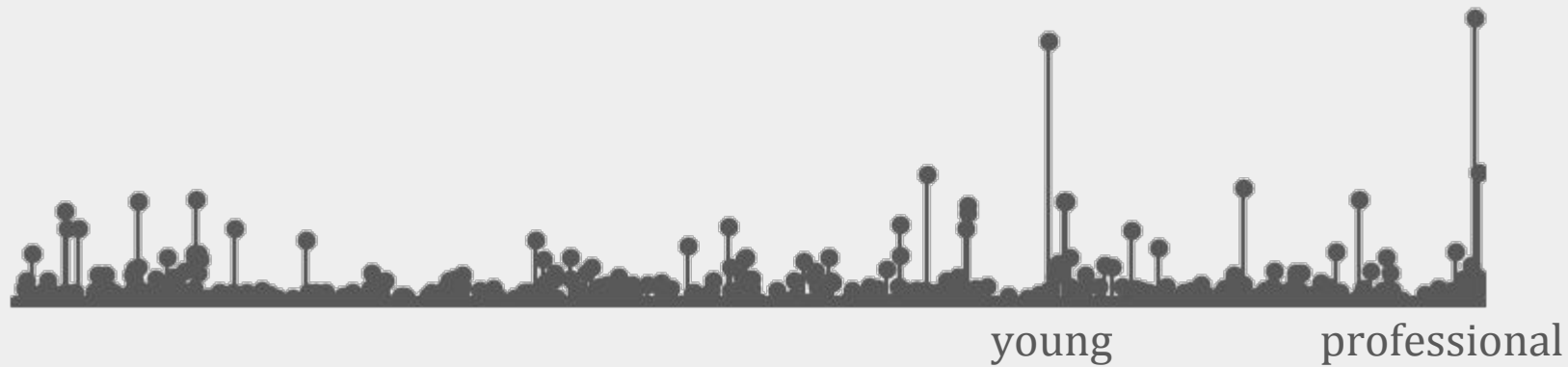
LDA



NMF



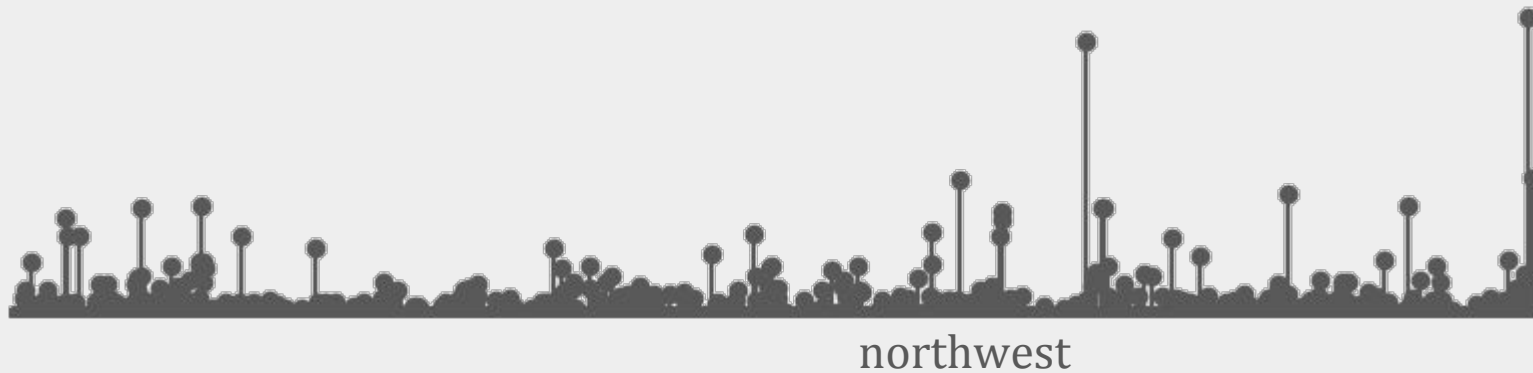
LDA



NMF



LDA



Let's find a host.

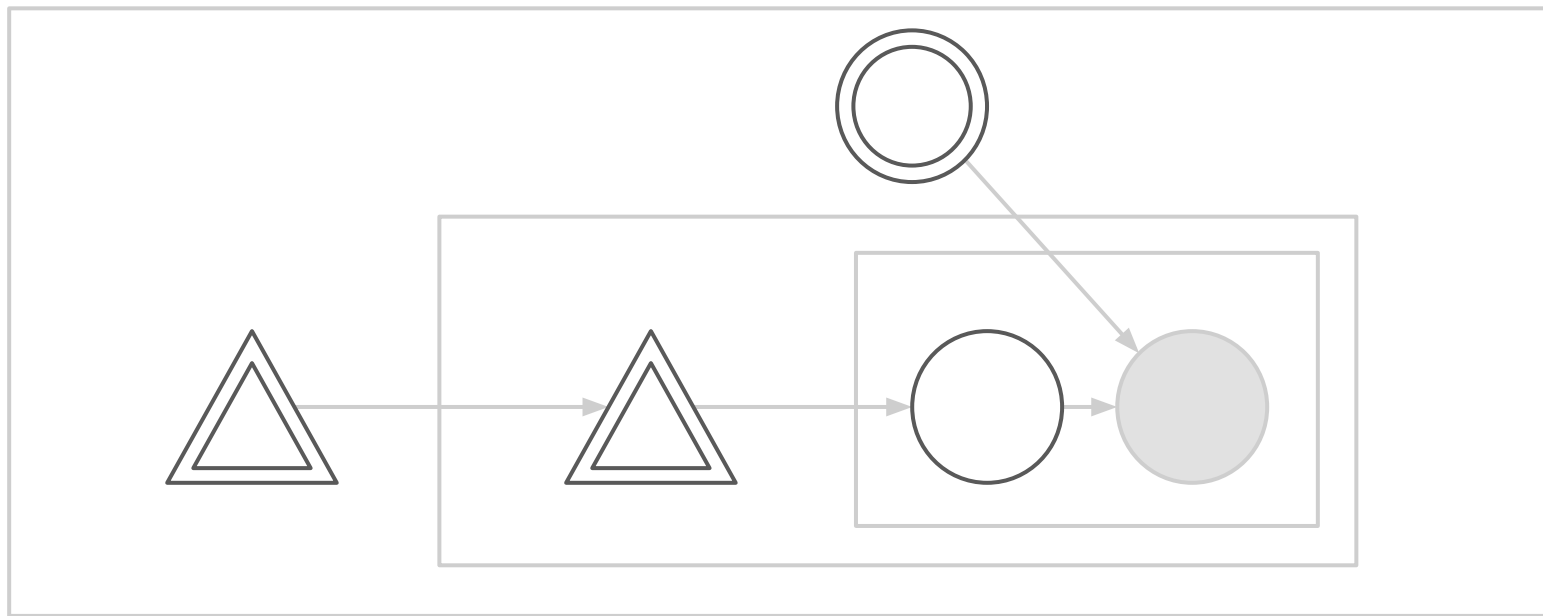
Word-document
matrix

\approx

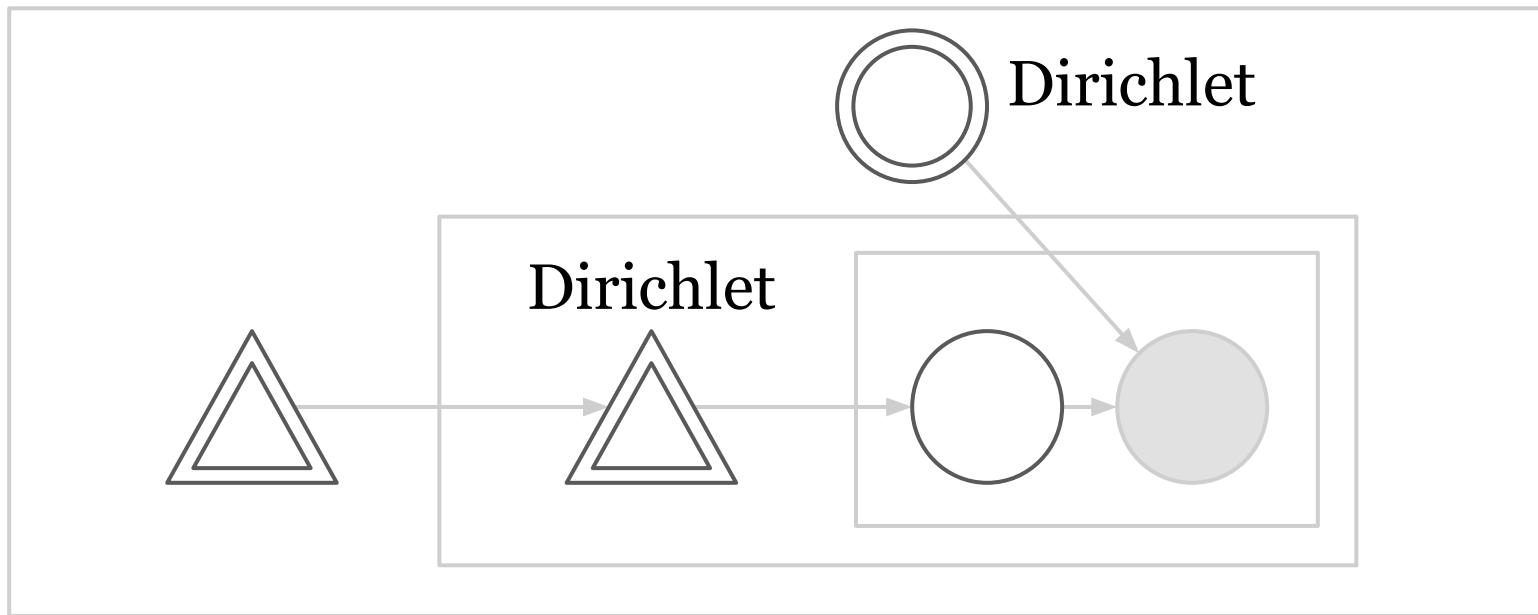
Word-feature
matrix

\times

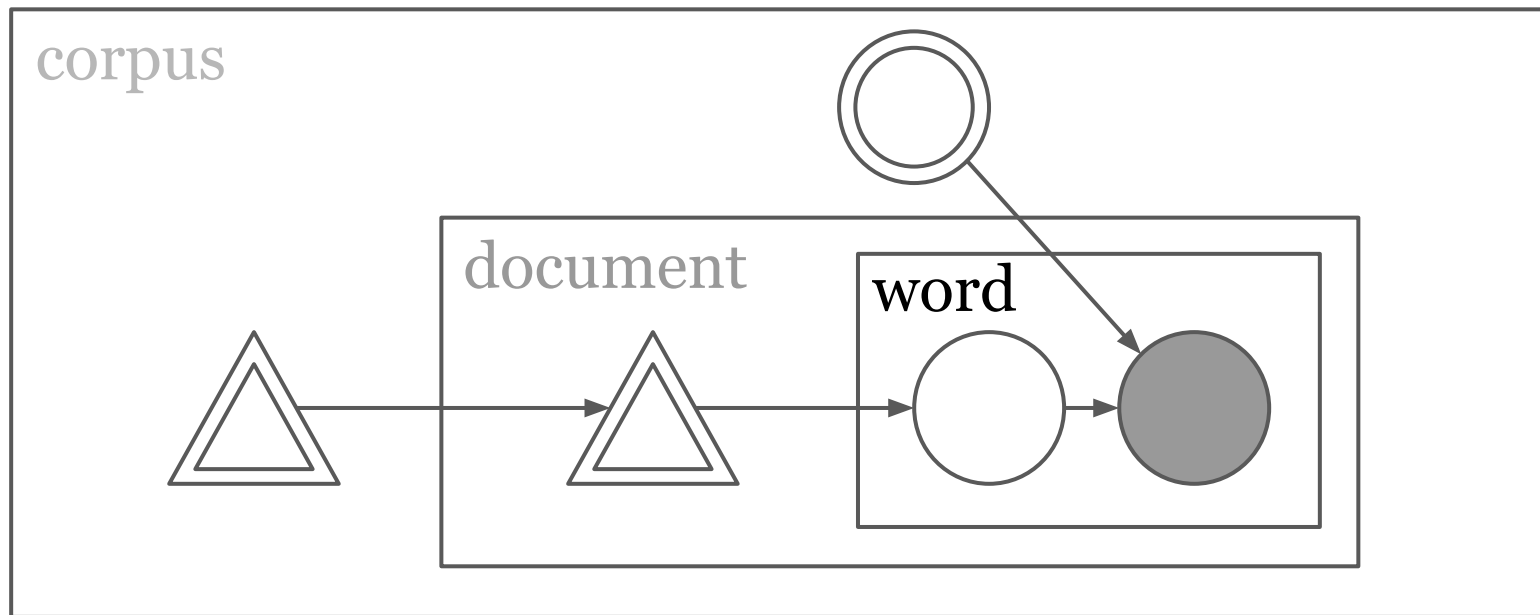
Feature-document
matrix



Latent Dirichlet Allocation



Latent Dirichlet Allocation



Latent Dirichlet Allocation

apartment
beer
veterinarian
Puerto Rico
St John
alive

NMF

LDA

Apartment
dwelling vets
who like beer
and tropical
vacations

NMF

LDA

Capitol Hill

NMF

Capitol Hill

LDA

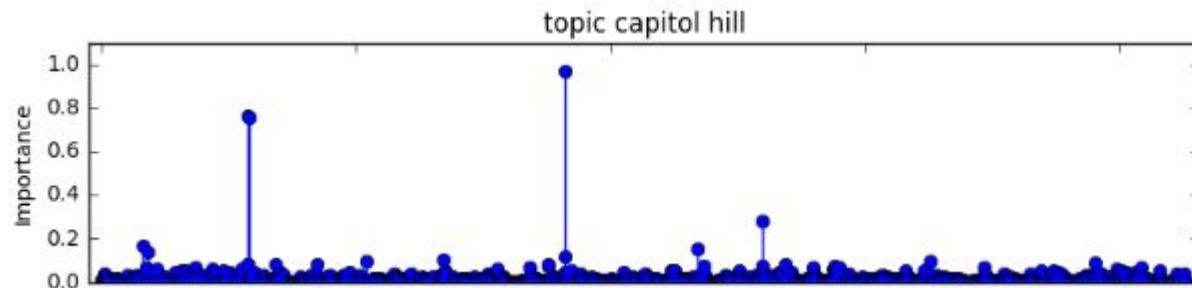
Capitol Hill
neighborhood
apartment
favorite
area

NMF

art
food
friend
read
Capitol Hill

LDA

NMF



LDA

