Park Pal
NPS Chatbot

Collaborators
Nicole Blakkan-Esser
Lauralyn Curry-Leech
Courtney Gibson

YEARLY VISITORS: 300 Million

JOBS ADDED: 300 Thousand

20 Billion IN LOCAL ECONOMIC CONTRIBUTIONS

NO VIRTUAL ASSISTANT CAPABILTIES

National Park Service: Park Pal 🐻

You can ask questions about parks, amenities, events, fees, and more. Type 'exit' to end the chat.

🤖 : How can I help you?

Where can I find Zion National Park?

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What is the description of the Grand Canyon?

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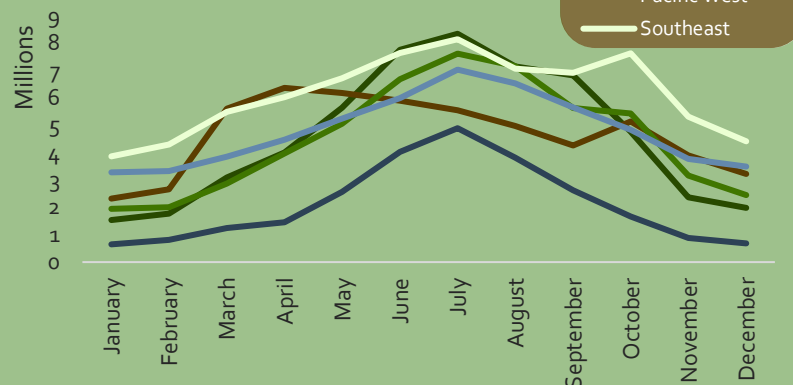
Type your message here...   Send
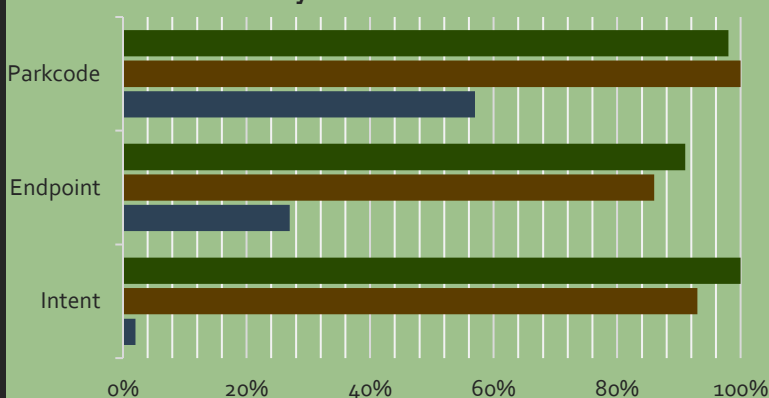
Chat with Park Pal Today!

PROJECT ROADMAP

1. PREPARE SYNTHETIC DATA
2. FINE-TUNE GPT
3. FINE-TUNE FLAN-T5
4. HOST PARK PAL aws
5. COMPUTE WITH LAMBDA λ
6. STORE WITH S3

Synthetic Data

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82k Queries

Model Evaluation

Evaluation methodology

Recreational Visits 2023

- Intermountain
- Midwest
- National Capital
- Northeast
- Pacific West
- Southeast

Millions (y-axis: 0–9)

x-axis: January, February, March, April, May, June, July, August, September, October, November, December

API Parameter
Prediction Accuracy

Legend: GPT, TF-IDF, SpaCy

- Parkcode
- Endpoint
- Intent

x-axis: 0%, 20%, 40%, 60%, 80%, 100%

Fine-Tuned GPT

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FLAN-T5

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Choose Change Graphic from the options.

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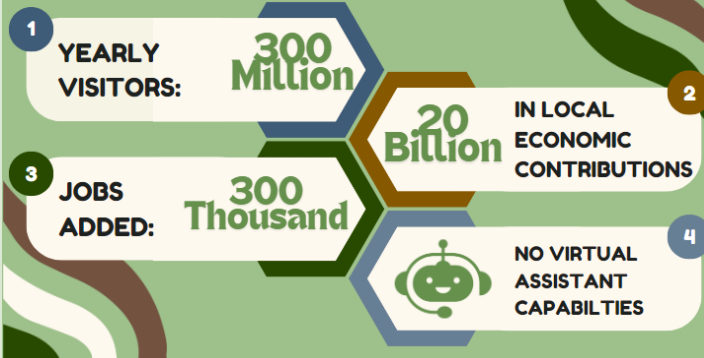
Park Pal
GPT Enabled Chatbot

NATIONAL PARK SERVICE 1916

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Courtney Gibson

GitHub
https://github.com/
nblakkanesser/MAD
S_Capstone

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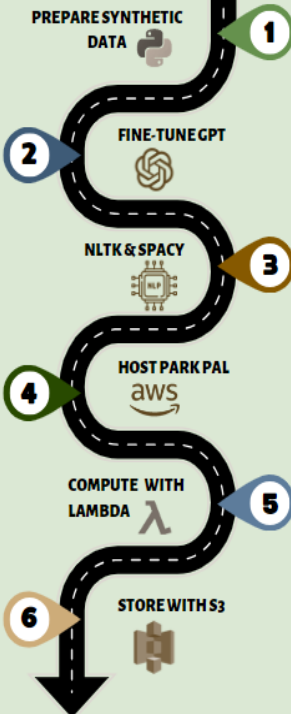
Type your message here... [Send]

Chat with Park Pal Today!

PROJECT ROADMAP

1. **PREPARE SYNTHETIC DATA**
2. **FINE-TUNE GPT**
3. **NLTK & SPACY**
4. **HOST PARK PAL** aws
5. **COMPUTE WITH LAMBDA** λ
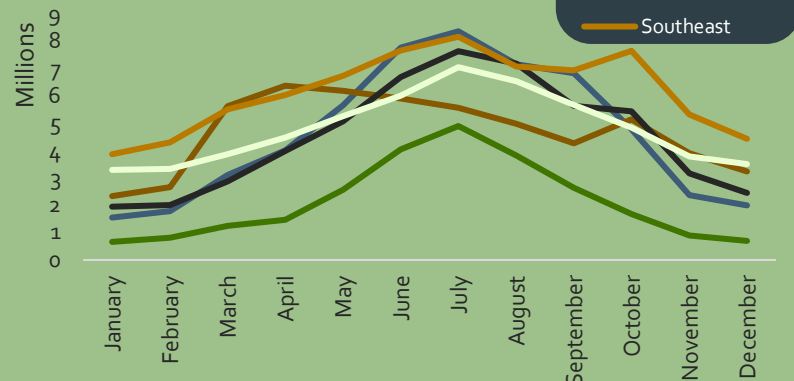6. **STORE WITH S3**

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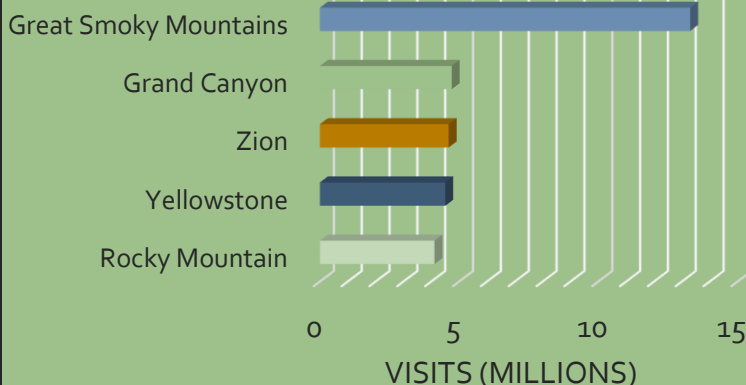
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Top 5 National Parks 2023

- Great Smoky Mountains
- Grand Canyon
- Zion
- Yellowstone
- Rocky Mountain

X-axis: VISITS (MILLIONS) — 0, 5, 10, 15

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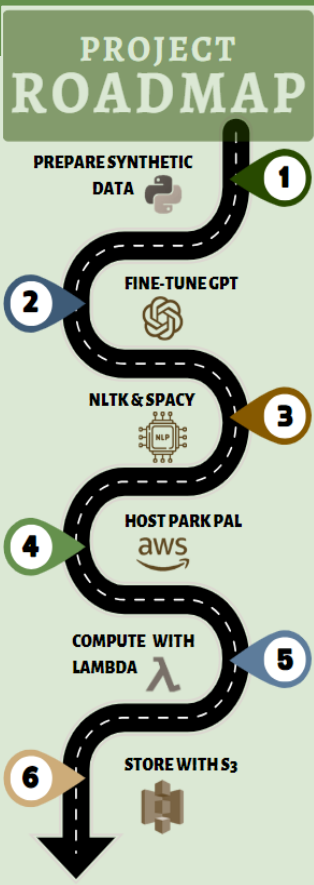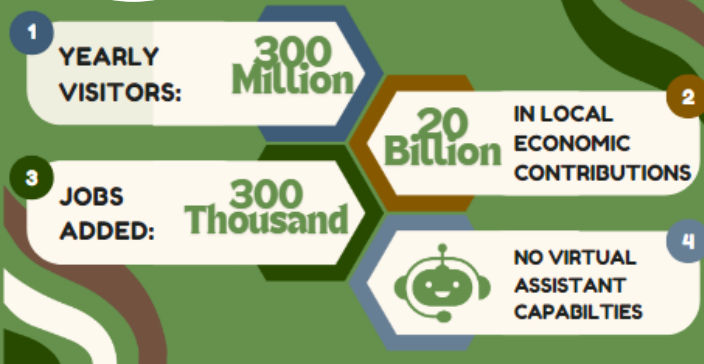
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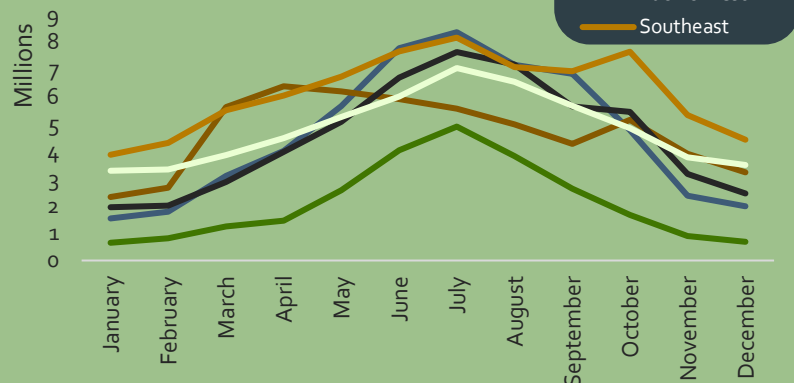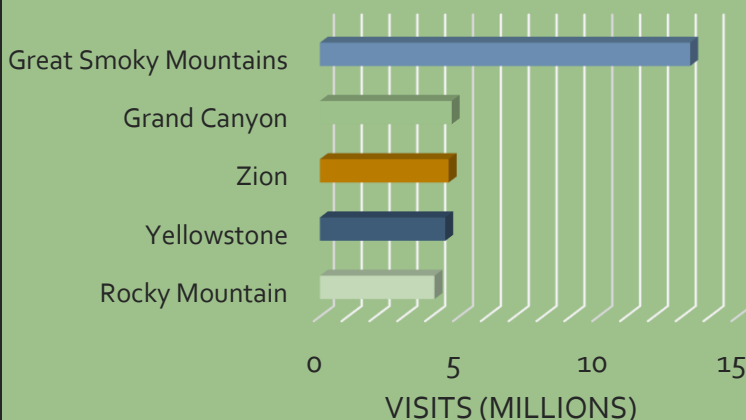
Type your message here... | Send

Chat with Park Pal Today!

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3. NLTK & SPACY
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82k Queries

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Evaluation methodology

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Millions (9, 8, 7, 6, 5, 4, 3, 2, 1, 0)

January, February, March, April, May, June, July, August, September, October, November, December

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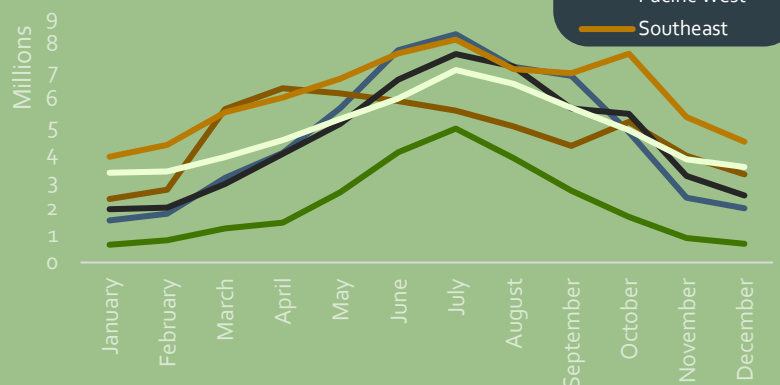*Chat with Park Pal Today!*

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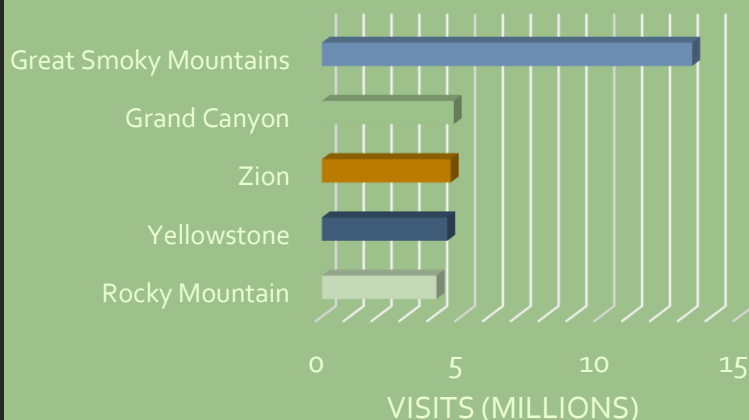
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Model
Evaluation

Evaluation methodology

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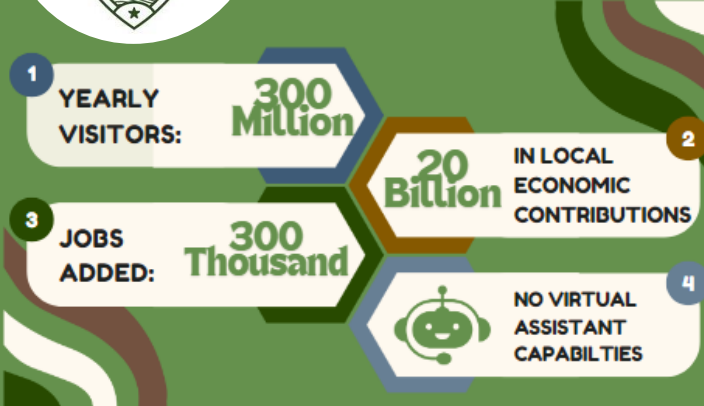
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NATIONAL PARK SERVICE 1916

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Type your message here...   Send

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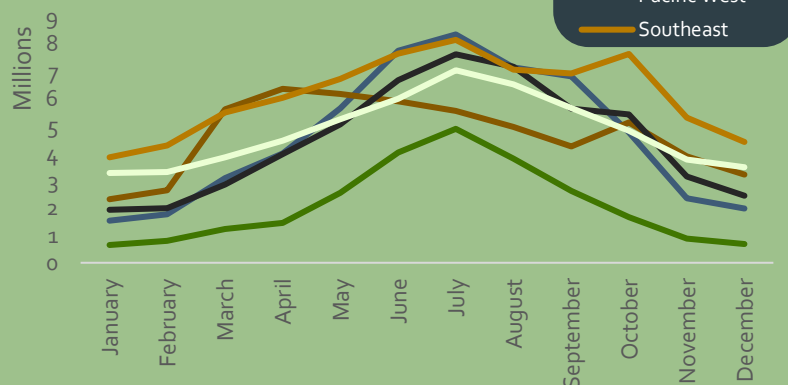
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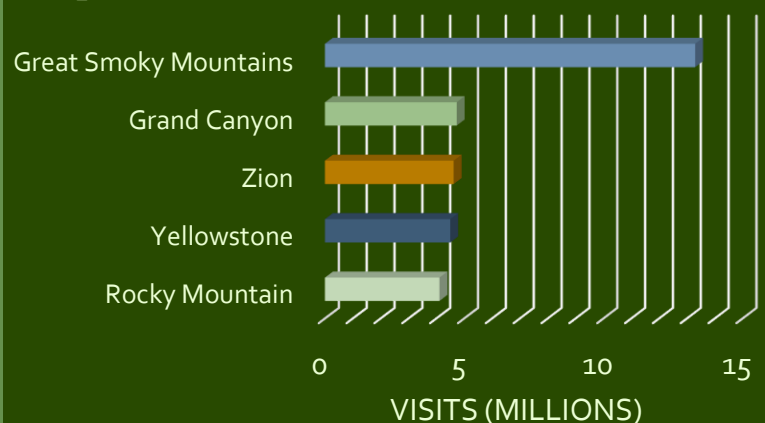
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Model Evaluation

Evaluation methodology

SpaCy & NLTK

2012
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Choose Change Graphic from the options.

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0   5   10   15
VISITS (MILLIONS)

Park Pal
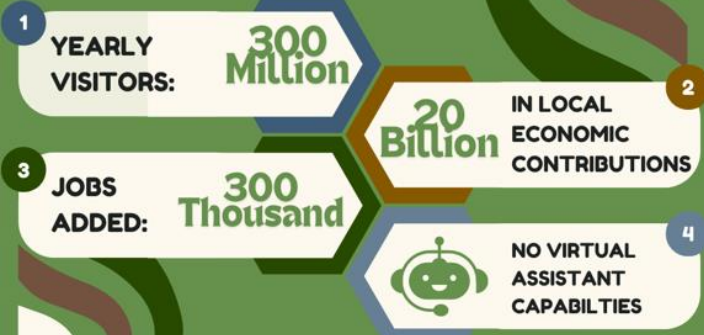## National Parks Service

NATIONAL PARK SERVICE 1916

Collaborators
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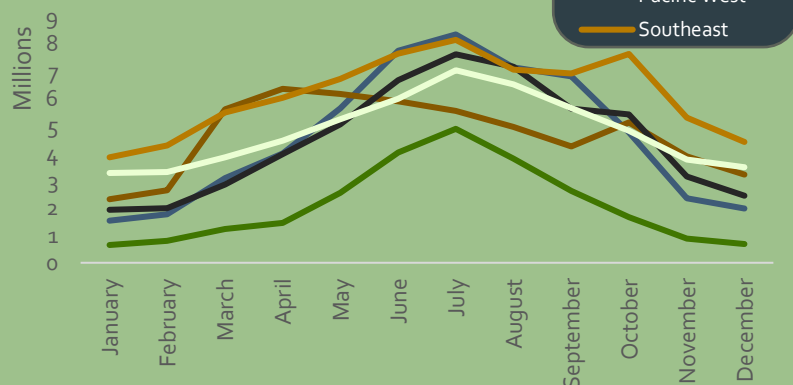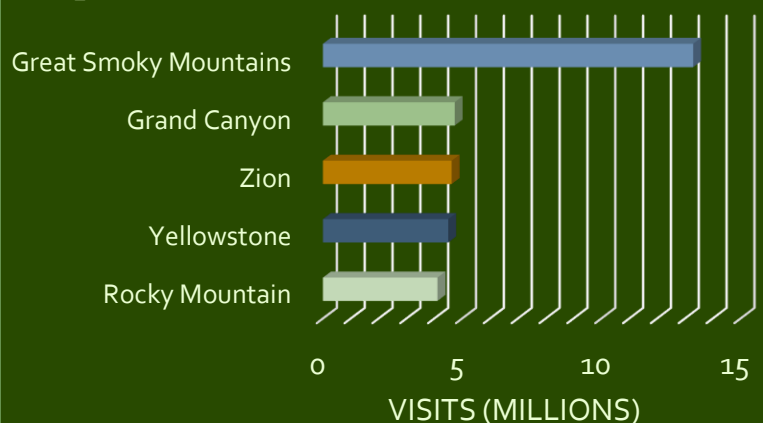
Type your message here... **Send**

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Top 5 National Parks 2023

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VISITS (MILLIONS): 0, 5, 10, 15

Park Pal
National Parks Service

NATIONAL PARK SERVICE 1916

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GitHub:

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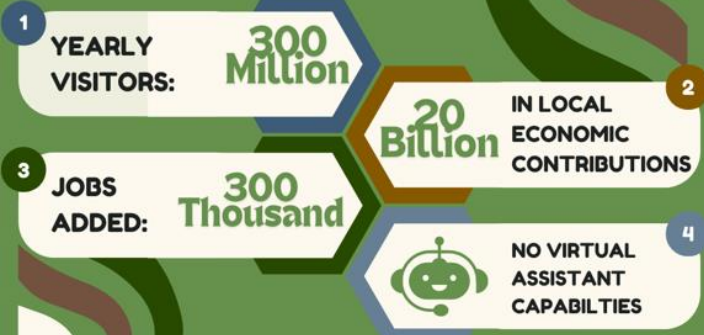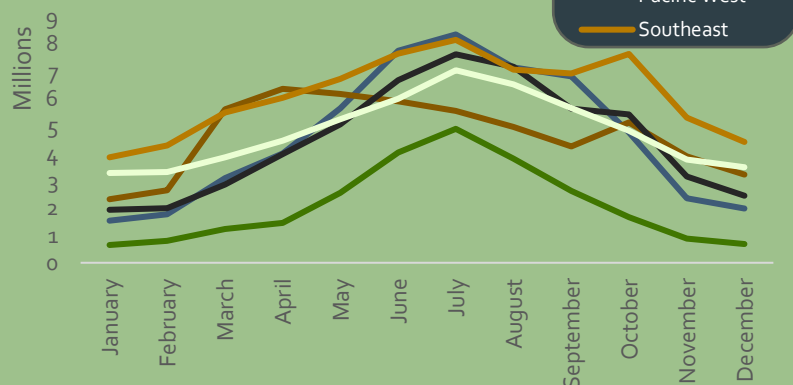- Rocky Mountain

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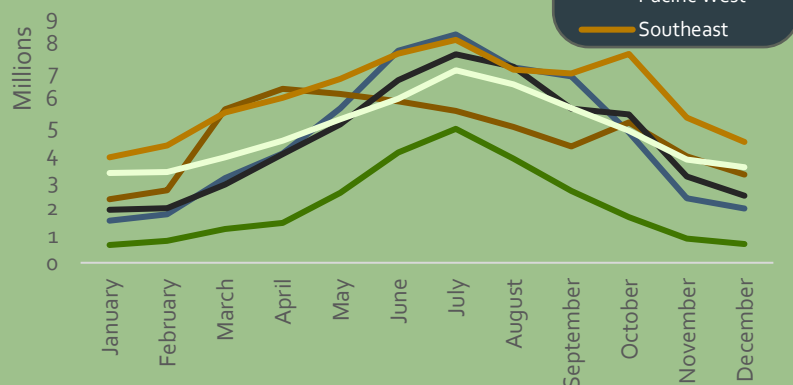
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SpaCy & NLTK

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