Airfleet's SoV Prompt for Claude

About Airfleet

We help B2B tech companies to generate pipeline from their website, including using SEO and GEO (Generative Engine Optimization).

The short version: Google results look different now with AI Overviews, and your buyers are increasingly researching in ChatGPT, Perplexity, and Claude before they ever hit your website. We help you show up in both.

If that's something you need help with - reach out here.

The SoV Prompt

Below is the full prompt I used to build the Share of Voice tool with Claude.

Why would you want this? Because SoV moves the conversation from "we rank for X keywords" to "we own Y% of organic traffic in our market." One of those numbers means something to your CEO. The other doesn't.

The prompt uses DataForSEO for competitive data and optionally pulls your actual traffic from Google Search Console. It costs about $0.15 per report in API calls.

Copy it, paste it into Claude, and you'll have a working Python script. If you get stuck or want help interpreting the results, ping me on LinkedIn.

```
# Prompt: Create an SEO Share of Voice Analyzer


## Task Overview
```

Create a Python CLI script that analyzes **Share of Voice (SoV)** for a brand against its competitors using the **DataForSEO API** and optionally **Google Search Console (GSC)**.

What is Share of Voice?

SoV measures your brand's visibility in organic search compared to competitors:

```
SoV = (Your Traffic / Total Market Traffic) × 100
```

Where Total Market = Your Traffic + Sum of All Competitor Traffic

Core Requirements

1. Data Sources

- **DataForSEO API** (required): For competitor traffic estimates
  - Endpoint: `dataforseo_labs/google/historical_bulk_traffic_estimation/live`
  - Provides monthly ETV (Estimated Traffic Volume) = CTR × Search Volume
  - Historical data from 2020 onwards

- **Google Search Console API** (optional): For actual brand traffic
  - Uses OAuth 2.0 authentication
  - Provides actual clicks, impressions, CTR
  - More accurate than estimates for owned properties

2. CLI Arguments

```
--brand-name        Main brand name (required)
--brand-url         Main brand domain (required)
--competitors       List of "Name:domain.com" pairs (required)
--api-login         DataForSEO login (or env: DATAFORSEO_LOGIN)
--api-password      DataForSEO password (or env: DATAFORSEO_PASSWORD)
--use-gsc           Use GSC for brand's actual traffic
--gsc-credentials   Path to Google OAuth credentials.json
--exclude-branded   Exclude branded keywords from SoV calculation
--max-keywords      Max keywords per domain for non-branded analysis
```

--location DataForSEO location code (default: 2840 = US)

--date-from Start date (default: 2024-01-01)

--date-to End date (default: today)

--output-dir Output directory (default: sov_data)

--demo Run with sample data (no API needed)

```

### 3. Output

The script should generate:

1. **Console Output:**
   - Monthly SoV percentages
   - Quarterly SoV (Q1, Q2, Q3, Q4)
   - Yearly SoV averages
   - Year-over-year change

2. **Data Files:**
   - `sov_analysis.json` - Complete analysis results
   - `sov_monthly.csv` - Spreadsheet-friendly format
   - `raw_dataforseo_response.json` - Raw API response
   - `raw_gsc_response.json` - Raw GSC data (if using GSC)
   - `non_branded_keywords.json` - Keyword-level data (if --exclude-branded)

3. **Visualization Charts (matplotlib):**
   - `sov_monthly_trend.png` - Line chart of monthly SoV
   - `sov_quarterly.png` - Bar chart comparing Q1-Q4 across years
   - `sov_yearly.png` - Bar chart comparing 2024 vs 2025
   - `sov_all_brands.png` - Horizontal bar chart showing all brands' SoV

### 4. Non-Branded Analysis Feature

When `--exclude-branded` is specified:

- Fetch keyword-level data using `ranked_keywords` endpoint
- Filter out keywords containing brand name variations
- Calculate SoV based on non-branded traffic only
```

- Show branded vs non-branded breakdown per domain

Brand keyword patterns to exclude:

- Brand name (e.g., "acmecorp")
- Domain without TLD (e.g., "acmecorp")
- Common variations (spaces, hyphens removed/added)

5. Hybrid Mode (GSC + DataForSEO)

When `--use-gsc` is specified:

- Use GSC actual clicks for the main brand (most accurate)
- Use DataForSEO estimates for competitors (since we can't access their GSC)
- Save token for future use (OAuth flow opens browser once)

Technical Specifications

DataForSEO API Calls

Historical Bulk Traffic Estimation:

```python
POST /v3/dataforseo_labs/google/historical_bulk_traffic_estimation/live
{
   "targets": ["domain1.com", "domain2.com"],
   "location_code": 2840,
   "language_code": "en",
   "date_from": "2024-01-01",
   "date_to": "2025-01-25",
   "item_types": ["organic"]
}
```

Ranked Keywords (for non-branded analysis):

```python
POST /v3/dataforseo_labs/google/ranked_keywords/live
{
```

```
    "target": "domain.com",
    "location_code": 2840,
    "language_code": "en",
    "limit": 1000,
    "offset": 0,
    "item_types": ["organic"]
}
```
Note: ETV is at `items[].ranked_serp_element.serp_item.etv`

GSC API Call
```python
# Search Analytics Query
{
    'startDate': '2024-01-01',
    'endDate': '2025-01-24',
    'dimensions': ['date'],
    'rowLimit': 25000,
    'dataState': 'final'
}
```

Key Data Structures

```python
@dataclass
class Brand:
    name: str
    domain: str

@dataclass
class MonthlyData:
    year: int
    month: int
```

```
    etv: float
    sov: Optional[float] = None

@dataclass
class BrandData:
    brand: Brand
    monthly_data: Dict[str, MonthlyData]  # key: "YYYY-MM"
```

SoV Calculation Logic

```python
# For each month:
total_market = brand_etv + sum(competitor_etvs)
sov = (brand_etv / total_market) * 100 if total_market > 0 else 0

# Quarterly: average of 3 months
# Yearly: average of 12 months
```

Example Usage

```bash
# Basic usage with DataForSEO only
python sov_analyzer.py \
    --brand-name "AcmeCorp" \
    --brand-url "acmecorp.com" \
    --competitors "CompetitorA:competitora.com" "CompetitorB:competitorb.io"

# With GSC for actual brand traffic
python sov_analyzer.py \
    --brand-name "MyBrand" \
    --brand-url "mybrand.com" \
    --competitors "Rival1:rival1.com" "Rival2:rival2.io" \
```

```
    --use-gsc \
    --gsc-credentials credentials.json

# Non-branded analysis
python sov_analyzer.py \
    --brand-name "AcmeCorp" \
    --brand-url "acmecorp.com" \
    --competitors "CompetitorA:competitora.com" "CompetitorB:competitorb.com" \
    --exclude-branded \
    --max-keywords 5000

# Demo mode (no credentials needed)
python sov_analyzer.py --demo
```

Dependencies

```
requests>=2.28.0
matplotlib>=3.6.0
google-api-python-client
google-auth-httplib2
google-auth-oauthlib
```

Key Implementation Notes

1. **Error Handling**: Handle API errors gracefully, show meaningful messages
2. **Rate Limiting**: DataForSEO allows 2000 calls/minute, 30 concurrent
3. **Pagination**: Ranked keywords endpoint requires pagination (max 1000 per request)
4. **Data Caching**: Save raw API responses for debugging/reprocessing
5. **GSC Token**: Pickle the OAuth token for reuse (`gsc_token.pickle`)
6. **Demo Mode**: Generate realistic sample data for testing without API credentials

Output Example

```

============================================================

Share of Voice Analysis

Mode: Hybrid (GSC + DataForSEO)

============================================================

Main Brand: AcmeCorp (acmecorp.com)

Competitors: 5

  - CompetitorA (competitora.com)

  - CompetitorB (competitorb.io)

  - MarketLeader (marketleader.com)

  ...


============================================================

RESULTS

============================================================


Monthly Share of Voice:

  2024-01: 5.23%

  2024-06: 6.78%

  2024-12: 8.07%

  2025-01: 9.35%

  ...


Quarterly Share of Voice:

  2024:

    Q1: 5.50%

    Q2: 6.25%

    Q3: 7.10%

    Q4: 8.03%

  2025:

    Q1: 9.96%

    Q2: 10.42%
```

Yearly Share of Voice:

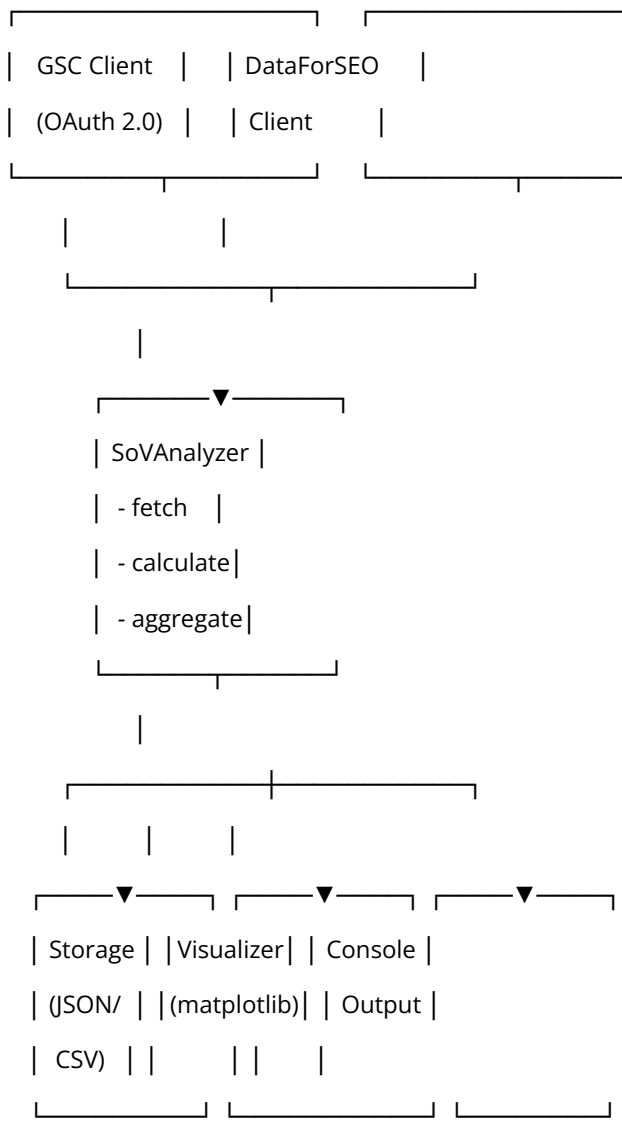
2024: 6.72%

2025: 10.19%

2024 vs 2025 Change: +3.47 percentage points

```

## Architecture Summary

```


```
```