Snap Signals

Mapping Job Trends & Public Sentiment

James Zimmerman

https://github.com/jameszimmerman3/snap-signals

Who I'm helping

Snap's Data Science & Talent Strategy teams
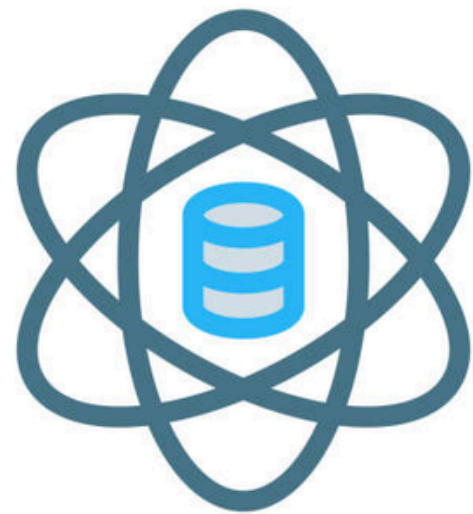
The problem

Are Snap's job investments aligned with public sentiment?

The solution

Compare **Reddit sentiment** + **Indeed job data** using SQL, Python & dashboards to spotlight high-ROI focus areas.

- Use SQL, statistical modeling, and dashboards
- Python as programming language
- Statistical modeling concepts

Relevance: Using real-world data to influence decision-making and employer branding.

Snap Inc.

Data Scientist, 1+ Years of Experience

New York, United States · 3 months ago

Promoted by hirer · Responses managed off LinkedIn

About the job

Snap Inc is a technology company. We believe the camera presents the greatest opportunity to improve the way people live and communicate. Snap contributes to human progress by empowering people to express themselves, live in the moment, learn about the world, and have fun together. The Company's three core products are Snapchat, a visual messaging app that enhances your relationships with friends, family, and the world; Lens Studio, an augmented reality platform that powers AR across Snapchat and other services; and its AR glasses, Spectacles.

The Product team uses creativity, insights, and operational excellence to steer our product vision across Snap Inc. This team of designers, scientists, and product managers work in a highly collaborative environment to build the products and experiences that bring our community together in new and special ways.

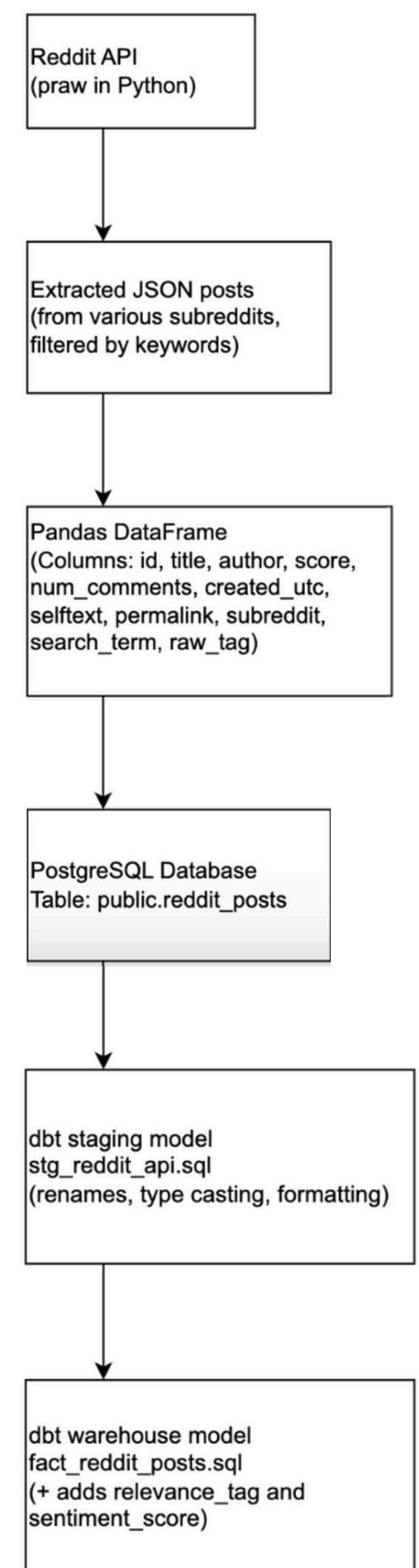We're looking for a Data Scientist to join Snap Inc.

What you'll do:

- Apply your expertise in quantitative analysis, data mining, and statistical modeling to deliver impactful, objective, and actionable data insights that enable informed business and product decisions
- Drive informed and timely decision-making that improves and optimizes the way our products are created, executed, and adopted'
- Collaborate with product managers, engineers, product marketers, and designers

Reddit as API Data Source

via PRAW API

- **1800+ posts** across tech
  subreddits
- **Metrics**: upvotes, comments,
  tags, subreddit, topic

- **Job relevance**: measures candidate sentiment toward Snap's
  roles, hiring, and culture — key for product and talent strategy.

Reddit API
(praw in Python)

Extracted JSON posts
(from various subreddits,
filtered by keywords)

Pandas DataFrame
(Columns: id, title, author, score,
num_comments, created_utc,
selftext, permalink, subreddit,
search_term, raw_tag)

PostgreSQL Database
Table: public.reddit_posts

dbt staging model
stg_reddit_api.sql
(renames, type casting, formatting)

dbt warehouse model
fact_reddit_posts.sql
(+ adds relevance_tag and
sentiment_score)

How has Reddit discussion around Snap's hiring, layoffs, and AI roles evolved over time?

Interview Posts Up **146%**, Layoffs & AI Also Spike

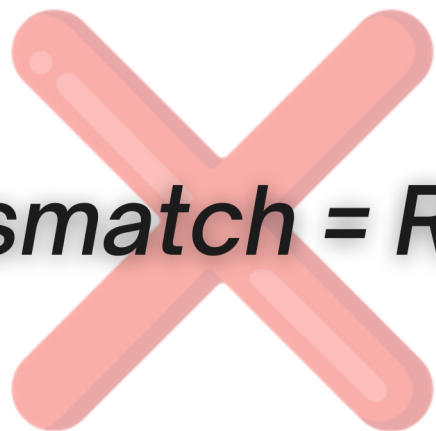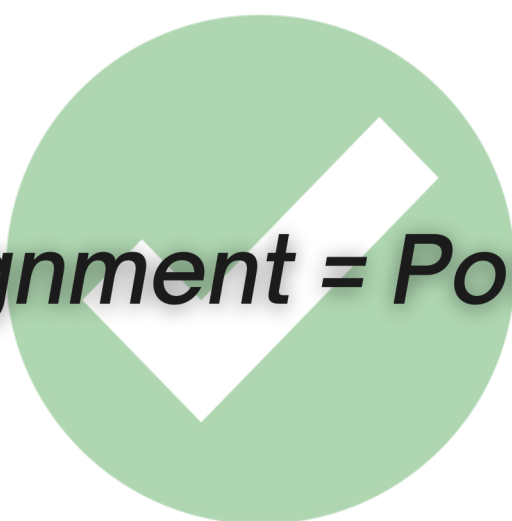Reddit Buzz on Snap-Related Topics (2012–2025)
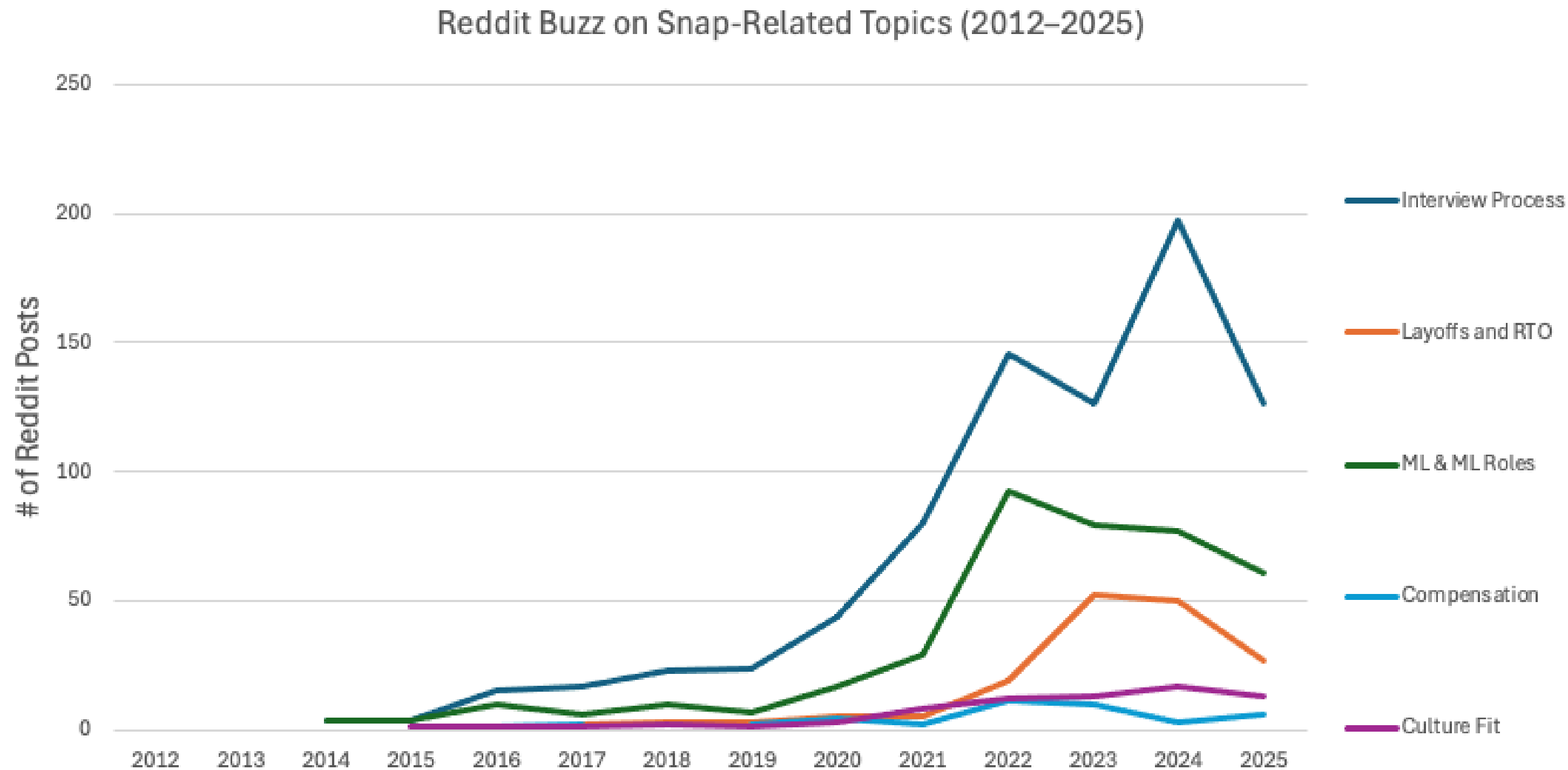
Snap's Message Needs to Match the Buzz

Recommendation

- Launch Hiring FAQ pages to reduce friction

- Address layoffs transparently online

- Spotlight AI team strength

Mismatch = Risk

Prediction
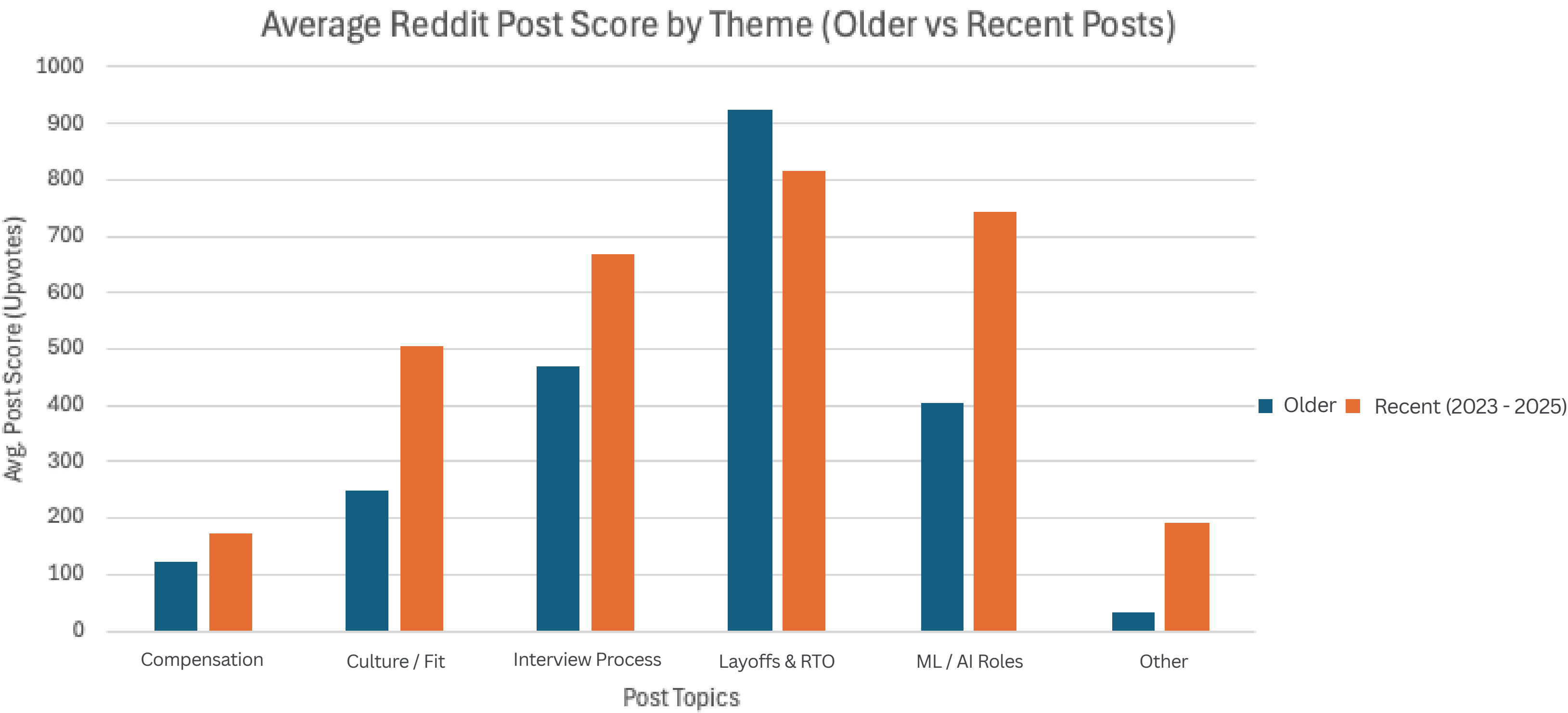
- Candidates trust Snap's vision

- Positive visibility = higher offer acceptance

Alignment = Power

Which topics drive the most upvotes and comments on Reddit — and what does this say about Snap's public image?

880 Avg Upvotes for **Layoffs**
But **AI** Still Drives the **Most Buzz**

Average Reddit Post Score by Theme (Older vs Recent Posts)

Turn Attention to Trust

Recommendation

- Clarify Snap's AI strategy and job security outlook

- Create recruiter toolkits to address viral concerns with facts
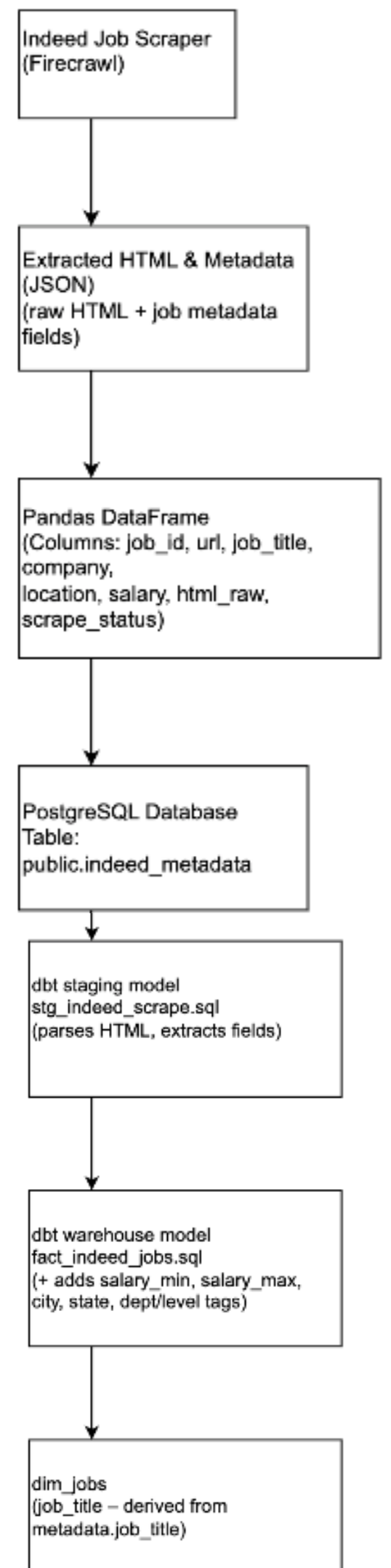
- Use buzz to steer messaging

Prediction

- Without messaging clarity, Snap risks **losing top talent**

- Engagement around AI can become **recruiting superpower**

Indeed as Web Srape Data Source

URL curation + Firecrawl scraping → JSON

- **Data collected**: job title, salary range, location, posting content
- **Key fields**:
  - Salary min/max parsing
  - Seniority detection
  - Focus area tagging (AI, Product, Data)

- **Job relevance**: Demonstrates ability to turn unstructured job listings into structured insights that inform hiring and product strategy.

Indeed Job Scraper
(Firecrawl)

↓

Extracted HTML & Metadata
(JSON)
(raw HTML + job metadata
fields)

↓

Pandas DataFrame
(Columns: job_id, url, job_title,
company,
location, salary, html_raw,
scrape_status)

↓

PostgreSQL Database
Table:
public.indeed_metadata

↓

dbt staging model
stg_indeed_scrape.sql
(parses HTML, extracts fields)

↓

dbt warehouse model
fact_indeed_jobs.sql
(+ adds salary_min, salary_max,
city, state, dept/level tags)

↓

dim_jobs
(job_title – derived from
metadata.job_title)

Which Snap job categories offer both high salaries and high public engagement on Reddit?

$323K Roles, 1,300+ Posts
AI/ML Dominates Both Pay and Buzz

Salary vs Reddit Buzz by Job Category at Snap
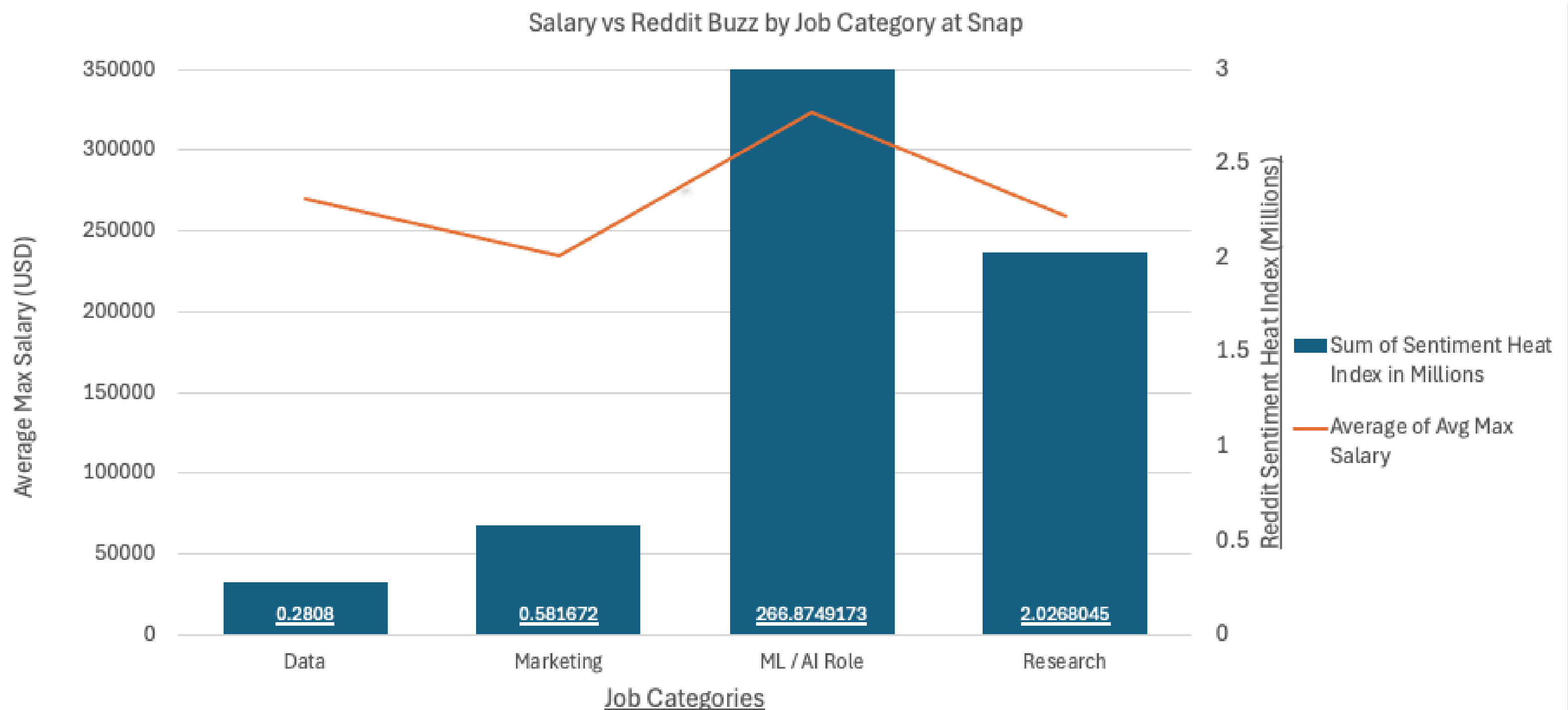
Double Down on AI. Rebrand the Rest

Recommendation

- Highlight AI/ML momentum in branding

- Use community enthusiasm to attract talent

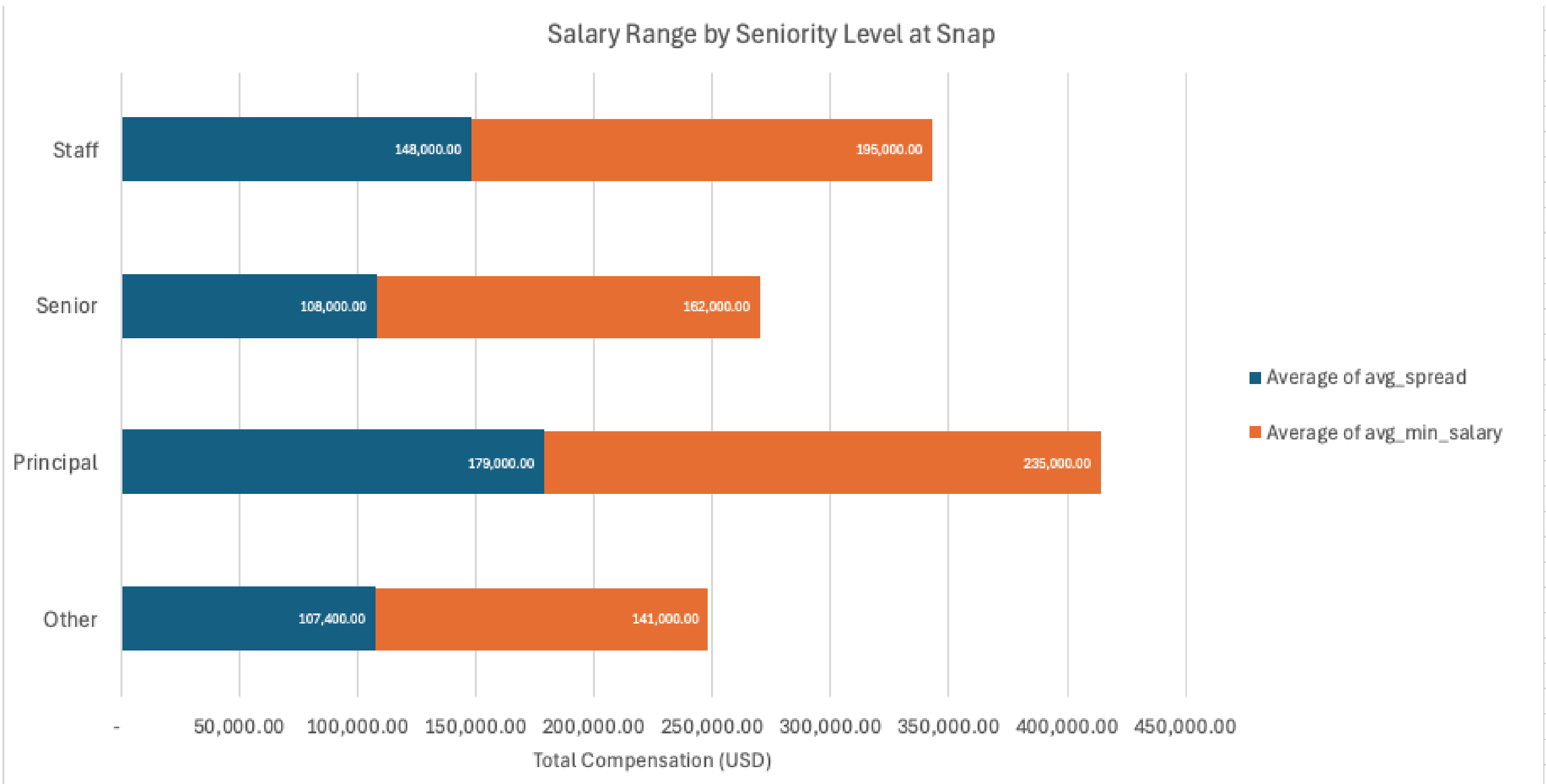- Investigate low-engagement roles (e.g., Data, Marketing)

Prediction

- Attract stronger AI talent faster

- Rebranded roles (like Marketing/Data) will gain traction online

- Public perception better matches internal investment

How does job seniority level relate to salary competitiveness and spread at Snap?

$414K & Climbing:
Leadership Pay Comes with Pricey Spread

Salary Range by Seniority Level at Snap

	Average of avg_spread	Average of avg_min_salary
Staff	148,000.00	195,000.00
Senior	108,000.00	162,000.00
Principal	179,000.00	235,000.00
Other	107,400.00	141,000.00

Total Compensation (USD)

Double Down on AI. Rebrand the Rest

Recommendation

- Define clear pay bands per level

- Standardize salary spread expectations

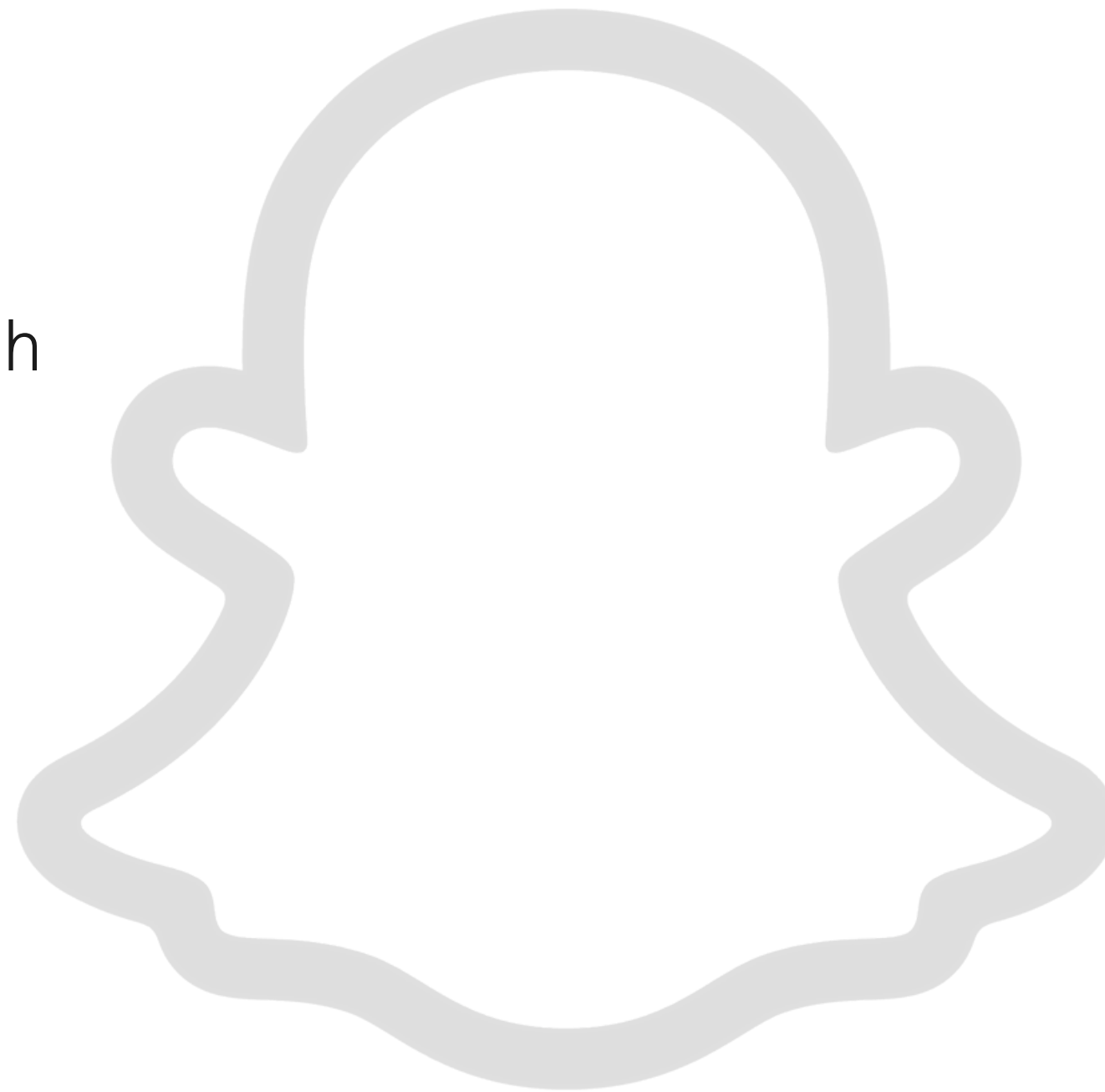- Improve transparency in job listings

Prediction

- Reduced candidate drop-off at senior levels

- Stronger leadership talent pipeline

Align Snap's Hiring with Buzz

What we found

- AI roles: high pay, high buzz
- Reddit flags hiring concerns

The Risk

- Messaging gaps risk top talent

Project Strength

- Bridged public sentiment + strategy
- Delivered real insights from noise