EMPLOYEE SATISFACTION THEMES

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HOW DO WE DETERMINE "FIT" AT A COMPANY?

- Often a black box in the hiring process

- Usually involves time-consuming research

- Review websites are not always accurate

DATA SOURCE

"You Get What You Put In"
★★★★★ ▾ Current Employee - Anonymous Employee in Seattle, WA

■ Recommends   ■ Positive Outlook   ■ Approves of CEO

I have been working at ▓▓▓▓▓▓

Pros
Really smart people, a lot of opportunity for growth, always encouraged to be innovative, think big, and create something new. Competitive salary and benefits with other major tech companies. 100% self motivating work environment. No dress code and 4 legged friends are welcome.

Cons
You have to be self motivated. NO ONE will hold your hand and tell you that you're doing a great job. If you need constant affirmations from management, this company isn't for you.

"Don't waste your career if you don't know people higher up"
★☆☆☆☆ ▾

■ Doesn't Recommend   ■ Neutral Outlook   ■ No opinion of CEO

I worked at ▓▓▓▓▓

Pros
Benefits ,salary , 401k. ..

Cons
No work life balance for people who put their 100 percent. Promotions are not based on talent . I worked with mangers who never have written single line of code and are technology mangers. Bonus etc depends how much nonsense you talk not the things you accomplished. Human resources is like a non existent entity. They don't even care or look after employees concerns

glassdoor

250,000+ Glassdoor reviews

Fortune 100 companies
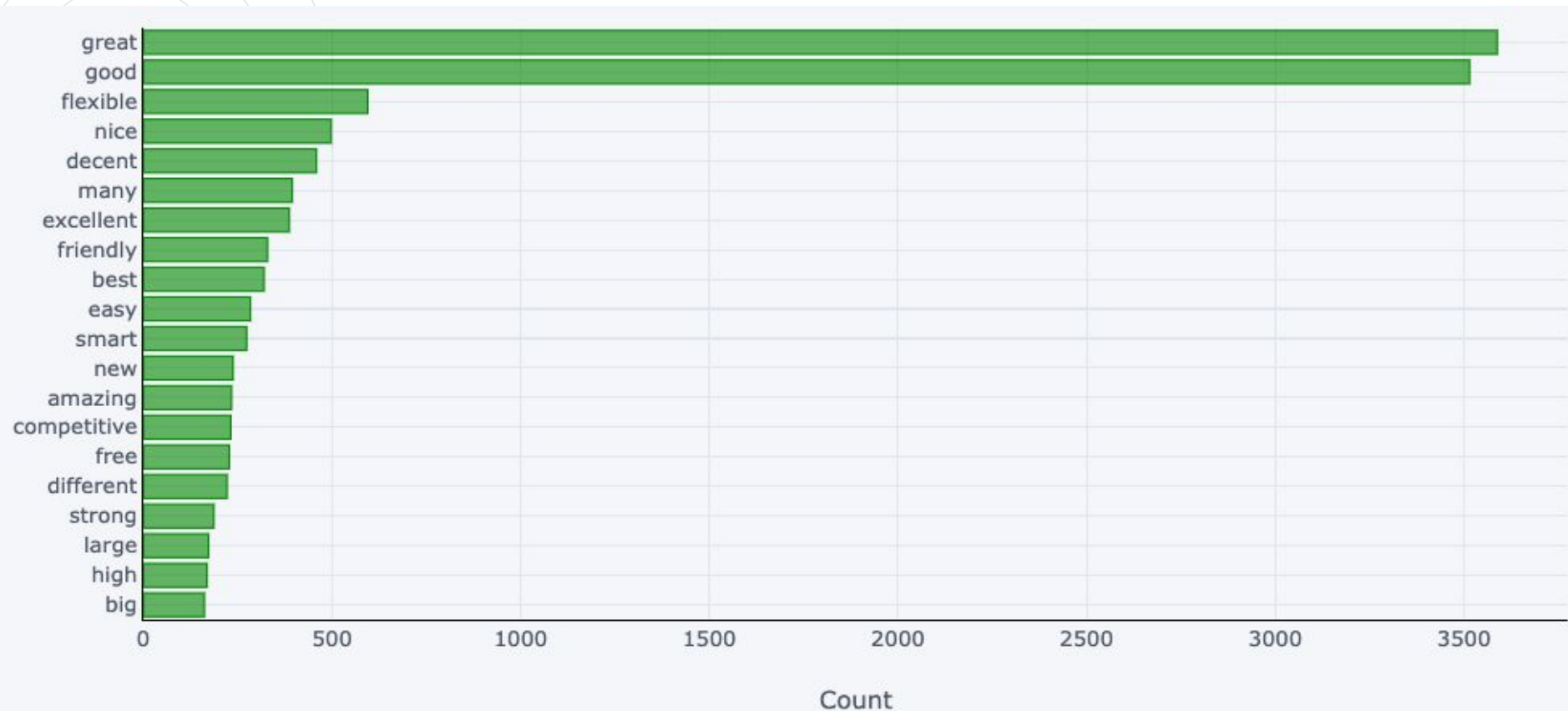
~38 hours of web scraping!

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METHODOLOGY:

- Unsupervised Natural Language Processing (NLP)

- **Topic Modeling**: Attempt to find natural concentrations of "topics" across multiple documents

Can we extract general themes of job satisfaction from user-provided reviews?

FREQUENCY OF ADJECTIVES AMONG 'PROS' (SAMPLE OF 10,000)

WHY DO PEOPLE LOVE THEIR JOBS?

Growth:

- Training and development programs

- High potential for growth and advancement

- High quality, exciting projects, and smart people

- Learning opportunity and skills development

- Challenging, fast-paced, strive for excellence

Social:

- Friendly, helpful people and work environment

- Work-life balance, flexible schedule

- "Family" oriented

- "Cool" people and place to work at start of your career

- Help and customer-oriented

- Rewarded for good work; caring managers, bonuses

Benefits:

- Good benefits: 401K, medical insurance, PTO, bonuses, vacation
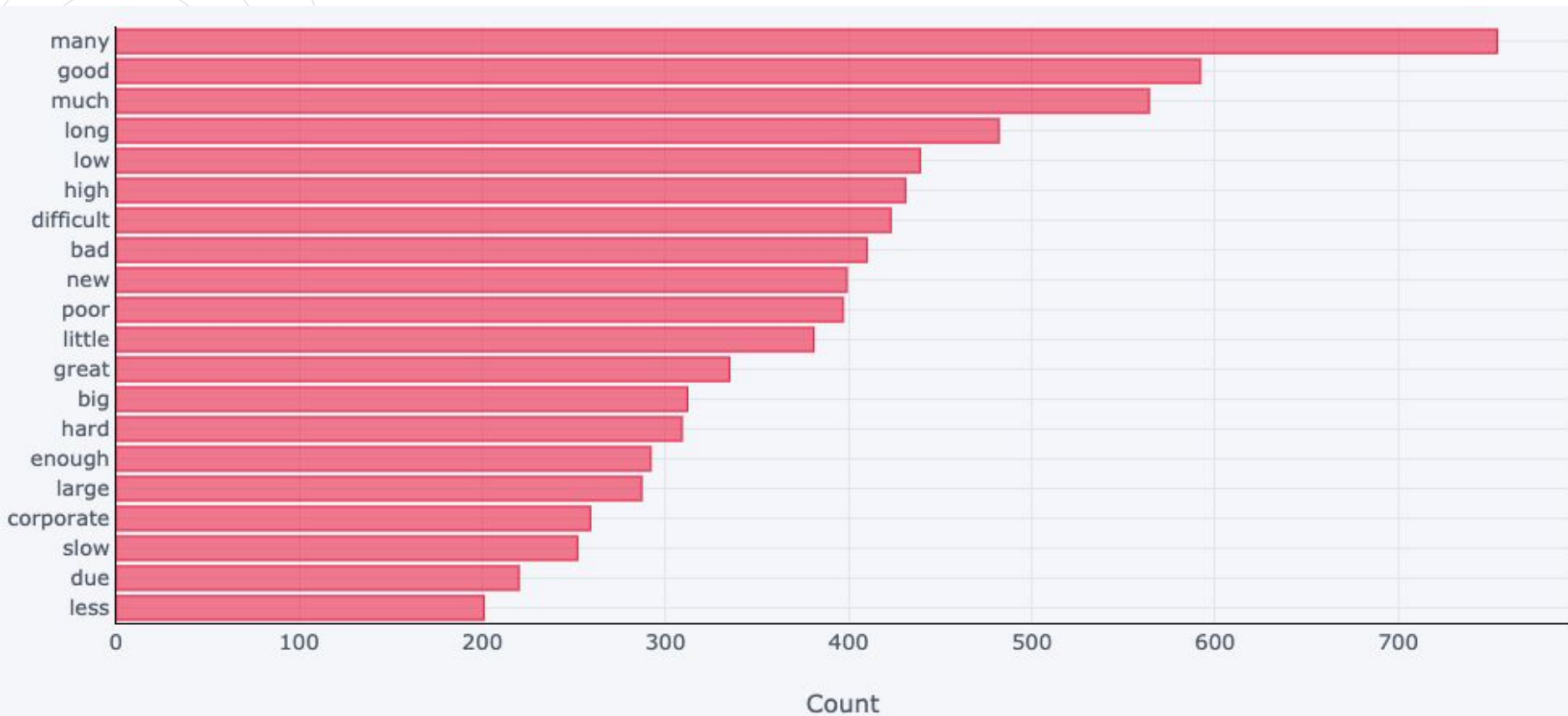
- Good salary, reimbursement for expenses

Company Standing:

- Superior products/industry

- Better than competitors, similar companies

Perks:

- Free amenities: free food, discounts, events, gym, education

FREQUENCY OF ADJECTIVES AMONG 'CONS' (SAMPLE OF 10,000)

WHY DO PEOPLE HATE THEIR JOBS?

Management Woes:

- Lack of leadership, poor management, lack of communication

- Incompetent managers, focused on metrics

- Unrealistic sales goals. Lofty expectations

Bureaucracy/Red tape:

- Office politics, red tape, a lot of manager influence

- Bureaucratic, hierarchical, big company. "Small fish in a big pond."

- Too many processes, procedures, meetings. Too formalized.

Structural Uncertainty:

- High stress, micromanagement, turnover

- Frequent change and layoffs

Limited Advancement:

- Low salary, limited benefits, lack of promotion

- Limited career opportunities, advancement, growth

- Lack of development, training, support

- Hard to advance, esp. to full time position

Social:

- Long work hours, occasional weekend shifts

- Lack of care for employees from upper management

- Not treated well, or respected

- Difficult scheduling, working outside

WHICH COMPANIES EXCEL OR FAIL IN THESE CATEGORIES?
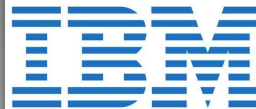
OUTLIER ANALYSIS: THE GOOD STUFF

Work Life Balance, Flexible schedule

Challenging, fast-paced, strive for excellence

Great benefits: 401k, med. insurance, vacation, PTO

Learning, growth, training opportunities

OUTLIER ANALYSIS: THE BAD STUFF

Long work hours, weekend shifts

Lack of leadership, poor management

Frequent structural changes, layoffs

High stress environment, large workload

LET'S LOOK AT THE COMPANY SIDE

Can we apply Topic Modeling to company pages to examine company core values?

- Looking at companies' **Core Values**, **Mission/Vision Statements**, and **Working with Us** pages

- Manual copying and pasting of Fortune 100 company pages

- What are companies advocating for and promoting in the workplace?

Our mission

From the beginning, our mission has been to organize the world's information and make it universally accessible and useful. Today, people around the world turn to Search to find information, learn about topics of interest, and make important decisions. We consider it a privilege to be able to help. As technology continues to evolve, our commitment will always be the same: helping everyone find the information they need.

Our Purpose

Every day we open our doors and welcome millions of hungry people. But they're not just hungry for food. They're hungry for something that can make their lives healthier, easier, brighter and a bit lighter. They're hungry to feel good, do well, to go from anxiety to inspiration.

People. Passion. Purpose.

We share a passion for serving customers, supporting our communities and making JCPenney the best retailer for all families. As a Company founded on the Golden Rule, our success is rooted in the belief that we treat everyone the way we would want to be treated. Working at JCPenney means joining a dedicated team of associates who are encouraged to be uniquely themselves in a collaborative and inclusive environment. After all, JCPenney is more than a destination for style and value, it's a place where careers prosper, accomplishments are celebrated and diversity flourishes. It's a place that's meant for you.

FORTUNE 100 VALUES FROM TOPIC MODELING

Diversity & Inclusion

- Being an accepting workplace for everyone

Helping Communities

- Creating stronger communities, helping people, giving back

World Leaders

- Setting the industry standard in products and technology
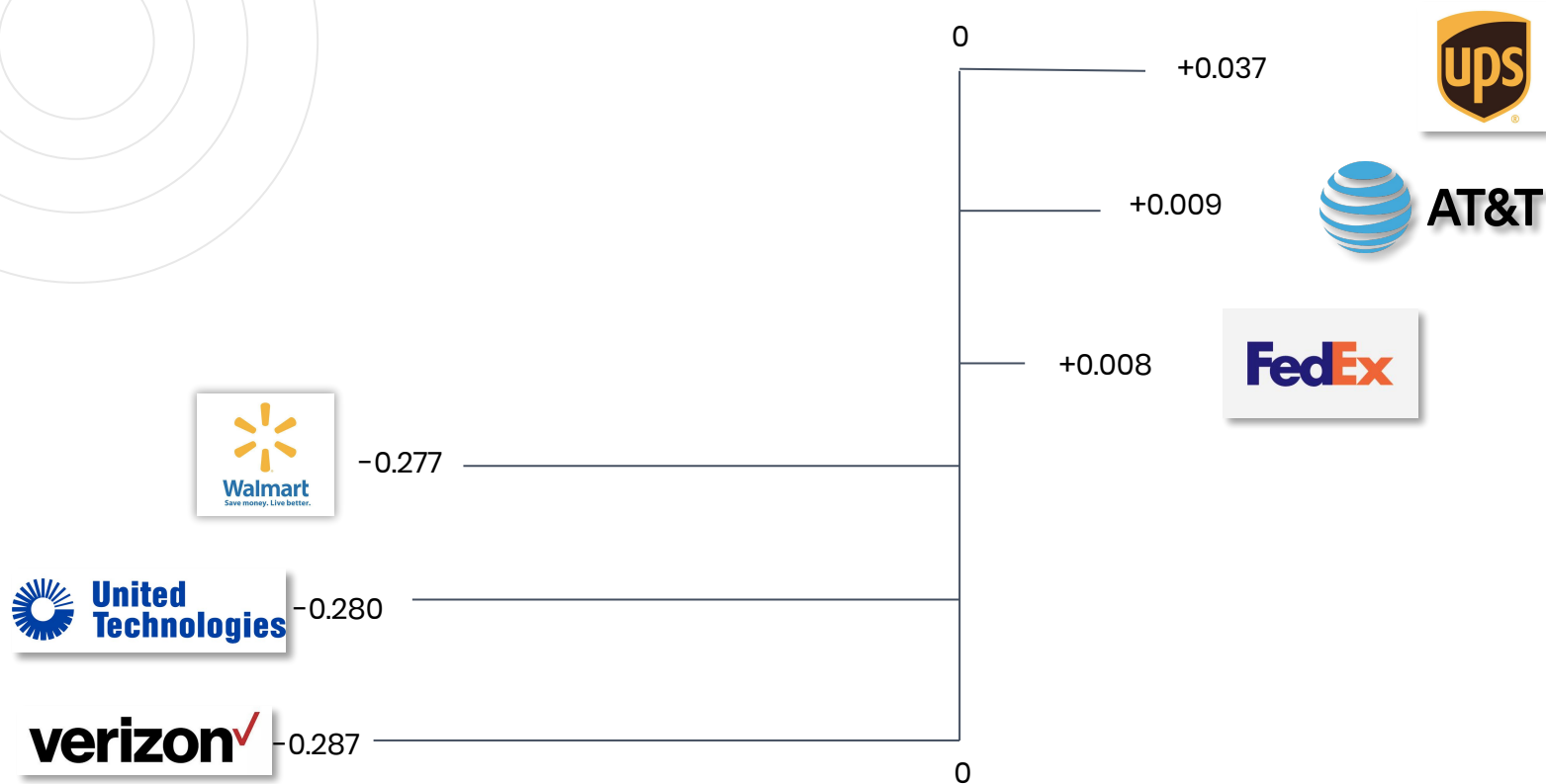
Respect, Commitment, Compliance

- Being accountable to outlined standards

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PROOF OF CONCEPT EMPLOYEE VS COMPANY COMPARISON

Is there a "mismatch" between what employees are saying and what companies advocate for?

Examine document similarity between reviews and company pages

Score based on difference between "Pros" and "Cons" similarity

DIFFERENCE IN COSINE SIMILARITY RATINGS (−1, 1)

0

+0.037   UPS

+0.009   AT&T

+0.008   FedEx

−0.277   Walmart

−0.280   United Technologies

−0.287   verizon

0

RESULTS & CONCLUSIONS

Summary:

○ We can accurately summarize topics of employee satisfaction using NLP and Topic Modeling

○ We can identify strengths and weaknesses across companies using outlier analysis

○ This has the potential to help job seekers and HR reps identify common strengths and pain points

○ Topic Modeling (LDA estimation) utilizes word frequency and is limited in its ability to capture semantic relationships

○ Company pages would be better summarized by pre-trained word embeddings and a larger corpus

THANK YOU!

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NATURAL LANGUAGE PROCESSING (NLP) APPLICATIONS