AI Impact on IT Employment Analysis Report

Analysis Report: Impact of LLMs on IT Industry

Author: AI Data Analysis Research Group

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Data Sources: Reddit, V2EX

Time Range: December 2022 - November 2025

1. Executive Summary

This study analyzes discussions from Reddit and V2EX technical communities regarding the impact of Large Language Models on IT industry employment. Through text analysis and sentiment analysis, we explore how technical professionals perceive the AI disruption.

Research Scale:
- Total Posts: 24
- Total Comments: 885
- Time Span: December 2022 to November 2025 (approximately 3 years)
- Platforms: Reddit (English), V2EX (Chinese)

Key Findings:
1. Overall sentiment is negative: Chinese community avg score -0.338, English near neutral (0.002)
2. Focus differences: English community focuses on "AI tools" and "industry impact", Chinese community focuses on "job replacement" and "unemployment"
3. Sentiment trend improving: From strongly negative (-1.0) in 2022 to -0.4 in 2025
4. Skill transformation consensus: Both communities agree on the need for new skills

2. Data Overview

Overall Statistics:
- Total Posts: 24
- Total Comments: 885
- Average Comments per Post: 36.9
- Data Time Range: 2022-12-05 to 2025-11-20

Platform Distribution:
- Reddit: 10 posts, 824 comments (avg 82.4 comments/post)
- V2EX: 14 posts, 61 comments (avg 4.4 comments/post)

Year Distribution:

- 2022: 1 post
- 2023: 4 posts
- 2024: 6 posts
- 2025: 13 posts

The discussion heat shows an increasing trend year by year, with 2025 posts accounting for 54% of the total, reflecting the continued increase in attention to employment impact as AI technology matures.

3. Keyword Analysis

Top 10 English Keywords:
1. ai (373)
2. replace (115)
3. code (109)
4. up (98)
5. engineers (83)
6. out (77)
7. jobs (73)
8. companies (69)
9. one (66)
10. chatgpt (65)

Top 10 Chinese Keywords:
1. ai (45)
2. programmer (38)
3. unemployment (32)
4. gpt (28)
5. large model (25)
6. replace/qudai (22)
7. artificial intelligence (19)
8. chatgpt (17)
9. work (15)
10. anxiety (12)

Common Focus:
- AI/ChatGPT/GPT core technology terms appear frequently in both communities
- "replace" reflects widespread concern about job displacement

Differences:
- English community focuses more on "engineers", "companies", "skills" - career development
- Chinese community has higher frequency of "unemployment", "anxiety" - more direct emotional expression

4. Sentiment Analysis

English Community:
- Positive: 177 (21.2%)
- Neutral: 475 (57.0%)
- Negative: 182 (21.8%)
- Average Score: 0.002 (near neutral)

Chinese Community:
- Positive: 8 (10.7%)
- Neutral: 33 (44.0%)
- Negative: 34 (45.3%)
- Average Score: -0.338 (negative)

Key Observations:
1. Significant difference between Chinese and English communities
2. Chinese community negative ratio (45.3%) is much higher than English (21.8%)
3. English community more balanced, reflecting more rational discussion atmosphere

Possible Reasons:
- Domestic IT industry "35-year-old crisis" and other existing anxieties

- Differences in tech industry development between US and China
- Cultural differences in emotional expression

5. Topic Analysis

Topic Distribution:

Topic	English	Chinese
Job Replacement	120	28
Skill Requirements	64	7
Career Development	139	15
AI Tools	197	12
Industry Impact	192	26
Emotional Response	34	4

AI Tools Discussion (Most Popular):
- ChatGPT, Copilot, Cursor and other AI tools most actively discussed
- Main viewpoints: AI is "useful assistant" not "replacement"
- Tools can improve productivity but cannot fully replace human judgment

Industry Impact Analysis:
- Relationship between tech company layoffs and AI
- Degree of impact on junior positions
- Differences in AI impact across different tech stacks

Job Replacement Concerns:
- Repetitive coding work easily replaced
- System design, architecture decisions difficult to replace short-term
- AI may change rather than eliminate programming careers

6. Time Trend Analysis

Sentiment Change Over Time:

Year	Posts	Avg Sentiment Score
2022	1	-1.000
2023	4	-0.750
2024	6	-0.422
2025	13	-0.405

Trend Analysis:
- 2022 (ChatGPT just released): Strongest panic (-1.0)
- 2023: Still negative (-0.75)
- 2024-2025: Sentiment stabilized around -0.4

Possible Explanations:
1. Adaptation effect: Practitioners gradually understand AI capability boundaries
2. Practical verification: AI has not replaced humans as quickly as expected

3. Psychological adjustment: From panic to rational thinking and proactive adaptation
4. Skill updates: Some practitioners have started learning and using AI tools

7. Main Findings and Conclusions

Core Findings:

1. Sentiment Evolution: Practitioners' sentiment toward AI gradually shifted from strong panic to rationality, but overall still negative

2. Regional Differences: Chinese tech community anxiety significantly higher than English community

3. Cognitive Shift: More people recognize AI is a tool not a replacement, starting to focus on how to leverage AI

4. Skill Consensus: Continuous learning and skill updates widely recognized as key to addressing AI disruption

5. Layered Impact: Junior positions believed to be more impacted, senior technical positions relatively safe

Research Conclusions:

1. AI will not completely replace programmers: But will profoundly change the way programming work is done

2. Skill structure will reorganize:
   - Declining: Repetitive coding, simple problem solving
   - Rising: System design, AI collaboration, business understanding

3. Career mindset needs adjustment: From "AI threat theory" to "AI collaboration theory"

4. Continuous learning becomes essential: Proactively learning AI tools and related skills is key to adapting

8. Recommendations

For IT Practitioners:

Short-term (1-2 years):
1. Master at least one AI-assisted programming tool (GitHub Copilot, Cursor)
2. Understand basic principles and usage of large language models
3. Maintain continuous attention to AI technology development

Medium-term (3-5 years):
1. Develop soft skills AI cannot easily replace (communication, leadership, creativity)
2. Advance to higher-level technical positions (architect, tech manager)

3. Explore new opportunities combining AI with professional domains

Long-term:
1. Establish habits and capabilities for lifelong learning
2. Maintain open mindset, adapt to technological change
3. Focus on career opportunities in emerging technology areas

For Enterprises:
1. Gradual AI tool introduction: Avoid one-size-fits-all, give employees time to adapt
2. Invest in training: Help existing employees master AI skills
3. Redefine positions: Adjust job responsibilities and evaluation based on AI capabilities

Appendix

Appendix A: Data Statistics Details
Complete data statistics in: data/processed/data_statistics.json

Appendix B: Analysis Results Details
Complete analysis results in: data/analysis/text_analysis_results.json

Appendix C: Visualization Charts
All visualization charts in data/visualizations/:
- platform_distribution.png - Platform distribution chart
- year_distribution.png - Year distribution chart
- sentiment_analysis.png - Sentiment analysis chart
- topic_distribution.png - Topic distribution chart
- keyword_frequency.png - Keyword frequency chart
- time_trend.png - Time trend chart
- overview_dashboard.png - Overview dashboard
- keyword_cloud.png - Keyword cloud chart

References:
1. OpenAI. (2022). ChatGPT: Optimizing Language Models for Dialogue.
2. GitHub. (2023). GitHub Copilot Research Report.
3. Stack Overflow. (2024). Developer Survey.
4. McKinsey Global Institute. (2023). The Economic Potential of Generative AI.

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