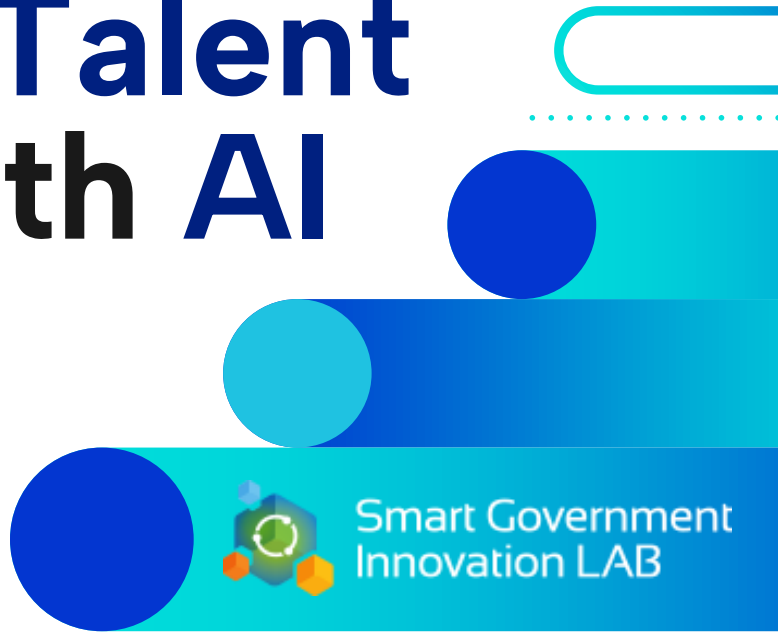
Neufast

Transforming Talent Acquisition with AI

Dr. Ning LI
Tech Lead and Principal Data Scientist
Neufast Limited
Jan 10, 2023



© 2023 NEUFAST LIMITED. ALL RIGHTS RESERVED

2022 AI Adoption in Human Resources

Almost 1 in 4 organizations uses AI in HR

42% 26% 24% 16%

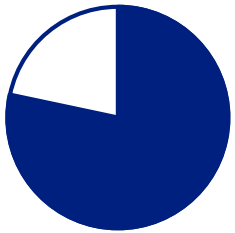
Extra-large Organizations
5,000+ employees

Large Organizations
500-4,999 employees

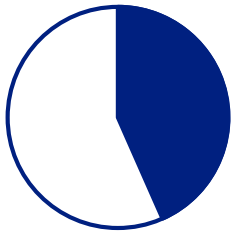
Medium Organizations
100-499 employees

Small Organizations
Below 100 employees

Which areas?



79%
Recruitment & Hiring
1 in 4 organisations plans to increase the use of AI in this area over the next 5 years

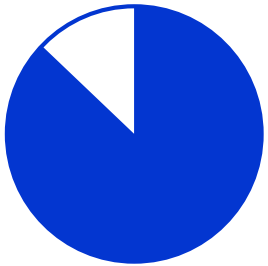


41%
Learning & Development

Society for Human Resources Management . (2022). Automation & AI in HR.
Society for Human Resources Management . (2022, April 13). Fresh SHRM research explores use of automation and AI in HR. *SHRM*. https://www.shrm.org/about-shrm/press-room/press-releases/pages/fresh-shrm-research-explores-use-of-automation-and-ai-in-hr.aspx

© 2023 NEUFAST LIMITED. ALL RIGHTS RESERVED

What HR professionals say about AI...



85%

Saves time and improves efficiency

44%

Improves ability to identify top candidates

30%

Reduces potential bias

18%

Improves candidates' diversity

Society for Human Resources Management . (2022). Automation & AI in HR

© 2023 NEUFAST LIMITED. ALL RIGHTS RESERVED

Neufast's Multi-lingual, AI-powered Video Assessment

Candidates can undertake interview anytime anywhere in 13 languages

High Flexibility

Standardized screening criteria using verbal behavior without human biases

Reduced Biases

Neufast AI-powered Interview

Hire Faster & Cheaper

Assessments are all conducted by the AI system, saving 50% of time and 70% of costs to improve hiring efficiency

Highly Reliable

Adopts structured interviews with reliability over 0.90, highly consistent with HR interviews
(supported by our Case Reliability Study)

Hickman et al (2021), Automated Video Interview Personality Assessments: Reliability, Validity, and Generalizability Investigations
Lordan et al (2022), People versus machines: introducing the Human, Intelligence, Recruitment, Evaluation (HIRE) framework

© 2023 NEUFAST LIMITED. ALL RIGHTS RESERVED

Validity of Assessment tools

Structured Interviews can best predict future work performance!

- Employment Interview – Unstructured
- Assessment Center (e.g. through interactions, graded by observers)
- Employment Interview – Structured (e.g. Neufast)
- Job knowledge Tests (e.g. certification exams)

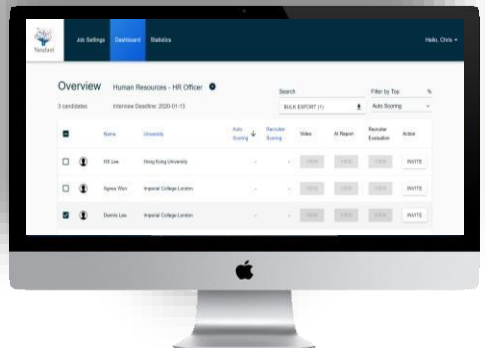
Sackett, P. R., Zhang, C., Berry, C. M., & Lievens, F. (2022). Revisiting meta-analytic estimates of validity in personnel selection: Addressing systematic overcorrection for restriction of range. *The Journal of applied psychology*, *107*(11), 2040–2068. https://doi.org/10.1037/apl0000994

© 2023 NEUFAST LIMITED. ALL RIGHTS RESERVED

3 simple steps for Multi-lingual Video Assessments

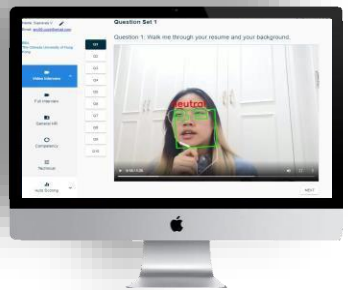
1

Set up **structured behavioral interviews**, **MCQ** and/or **short questions & answer**



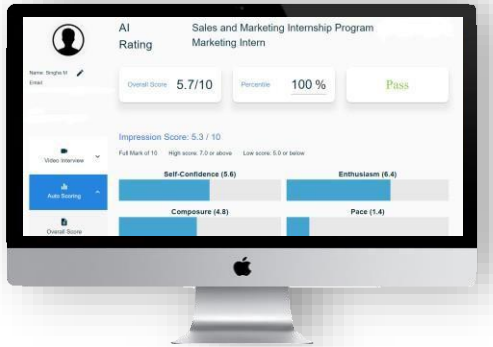
2

Candidates are interviewed and assessed in preferred languages with **Virtual Recruiters**



3

Validated AI scores are matched to HRs preference

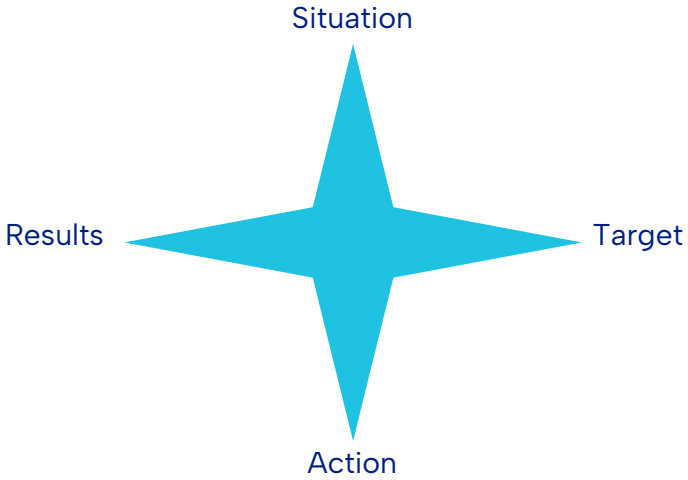


Watch Neufast company video here

© 2023 NEUFAST LIMITED. ALL RIGHTS RESERVED

How to ask behavioral questions?

STAR Framework



Funnel Questions

Start with an open-ended question:

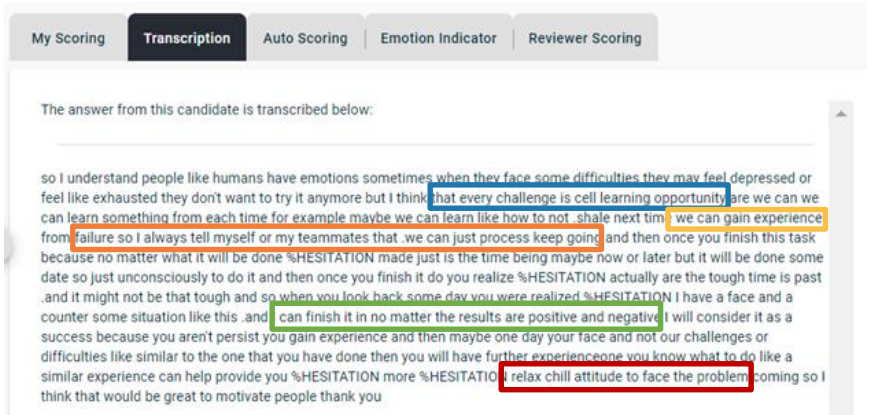
- “Tell me about your most recent project.”
  “Why did you use this approach?”
- “What was the outcome?”
- “What could you have done differently?”
- “What size team were you working with?”

Gets the facts, the personal contributions, and the results

© 2023 NEUFAST LIMITED. ALL RIGHTS RESERVED

An Award-winning SaaS solution for AI-powered online interview assessment

- Proprietary **multi-model AI** built on **20m corpus** & **100,000** Asian candidate videos
- Scoring and ranking candidates based on skill and competencies according to **I/O psychological framework**



Learning agility

Responsibility

Communication with impact

Emotional intelligence

Grit and Passion

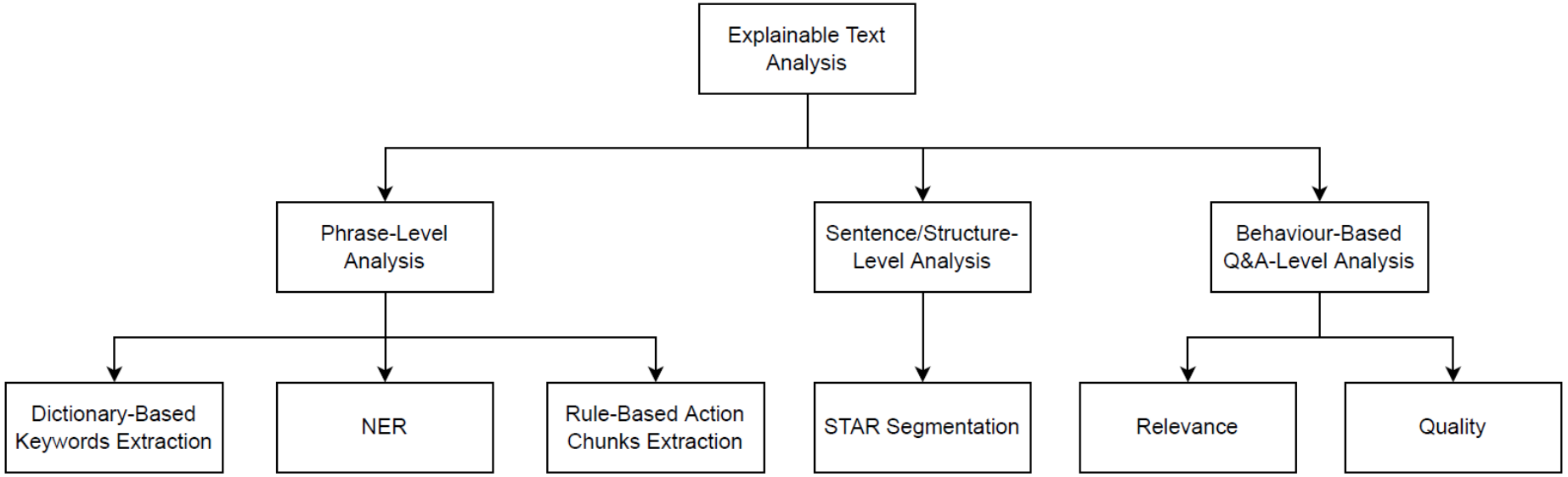
Highly accurate & reliable for predicting job performance

AI/ML model accuracy (F1): **95%** weighted-average
Reliability (Cronbach's Alpha): **0.91** for internal consistency with human assessors
Mean Absolute Error (MAE): **<0.5** (out of 10)

© 2023 NEUFAST LIMITED. ALL RIGHTS RESERVED

Neufast

Explainable AI for competency scoring based on **3-level text analysis** (behavioral-level Q&A, STAR structure level, phrase-level)

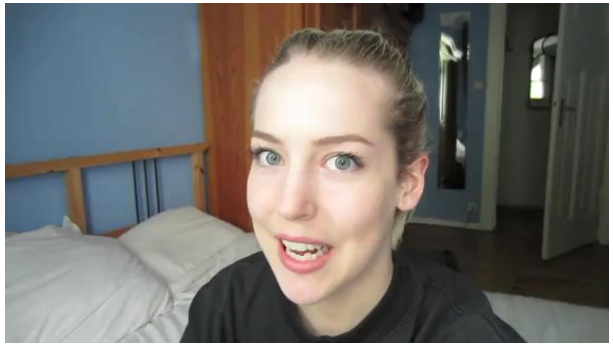


© 2023 NEUFAST LIMITED. ALL RIGHTS RESERVED

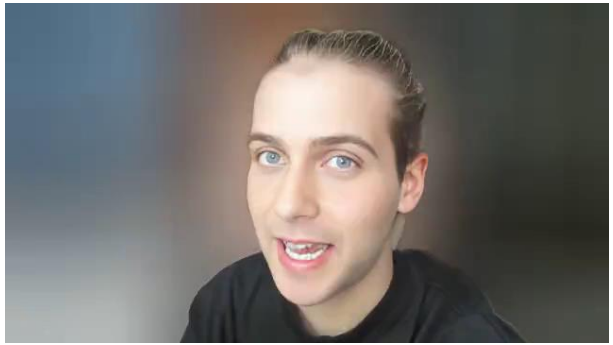
Neufast

Patent-filed Personal Identifiable Information Removal AI

Original



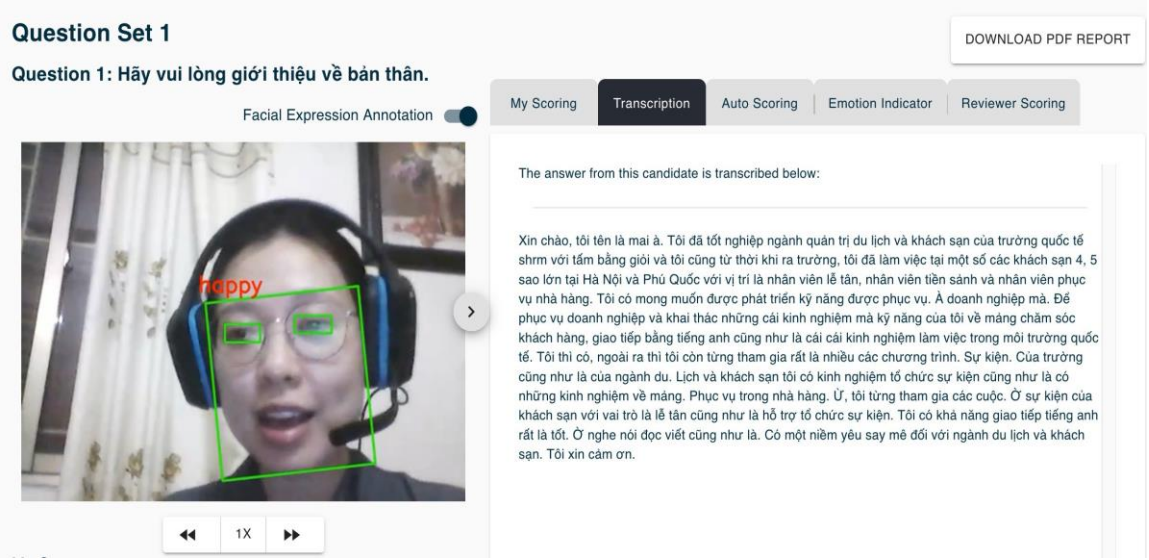
Processed



Depersonalization (e.g., gender, skin color, background, voice) of videos for debiased AI.

© 2023 NEUFAST LIMITED. ALL RIGHTS RESERVED

Mixed Language LLM Model



Support auto-detection, language recognition and audio transcription with Word Error Rate of 10-15 in 13 different Asian and European Languages

© 2023 NEUFAST LIMITED. ALL RIGHTS RESERVED

Adding Human Touch – Avatar Interviewer

Customize your own
Virtual Interviewer

Unique qualities that
fits your organization

Provide candidates
with a sense of
authenticity & warmth

© 2023 NEUFAST LIMITED. ALL RIGHTS RESERVED

Neufast

Use Case: Insurance Sector

Provide hiring recommendation via **API integration, customizable scoring matrix** coupled with **candidate defaulter rules** using facial & voice recognition in mixed language interviews conducted by **Virtual Recruiters**

Task Performance

- Goal and Achievement Striving

Contextual Performance

- Malay, English & Mandarin Oral Communication
- Building Relationships and Network

Adaptive Performance

- Grit and Passion
- Emotional Intelligence

© 2023 NEUFAST LIMITED. ALL RIGHTS RESERVED

Neufast

Neufast – your Virtual Recruitment Partner for your recruitment needs!

Let us know what do you think about this sharing!
We will give away a free trial account to each completed respondent.

Neufast Website

User Trial Account Giveaway

© 2023 NEUFAST LIMITED. ALL RIGHTS RESERVED