

TREND REPORT - PRESENTATION

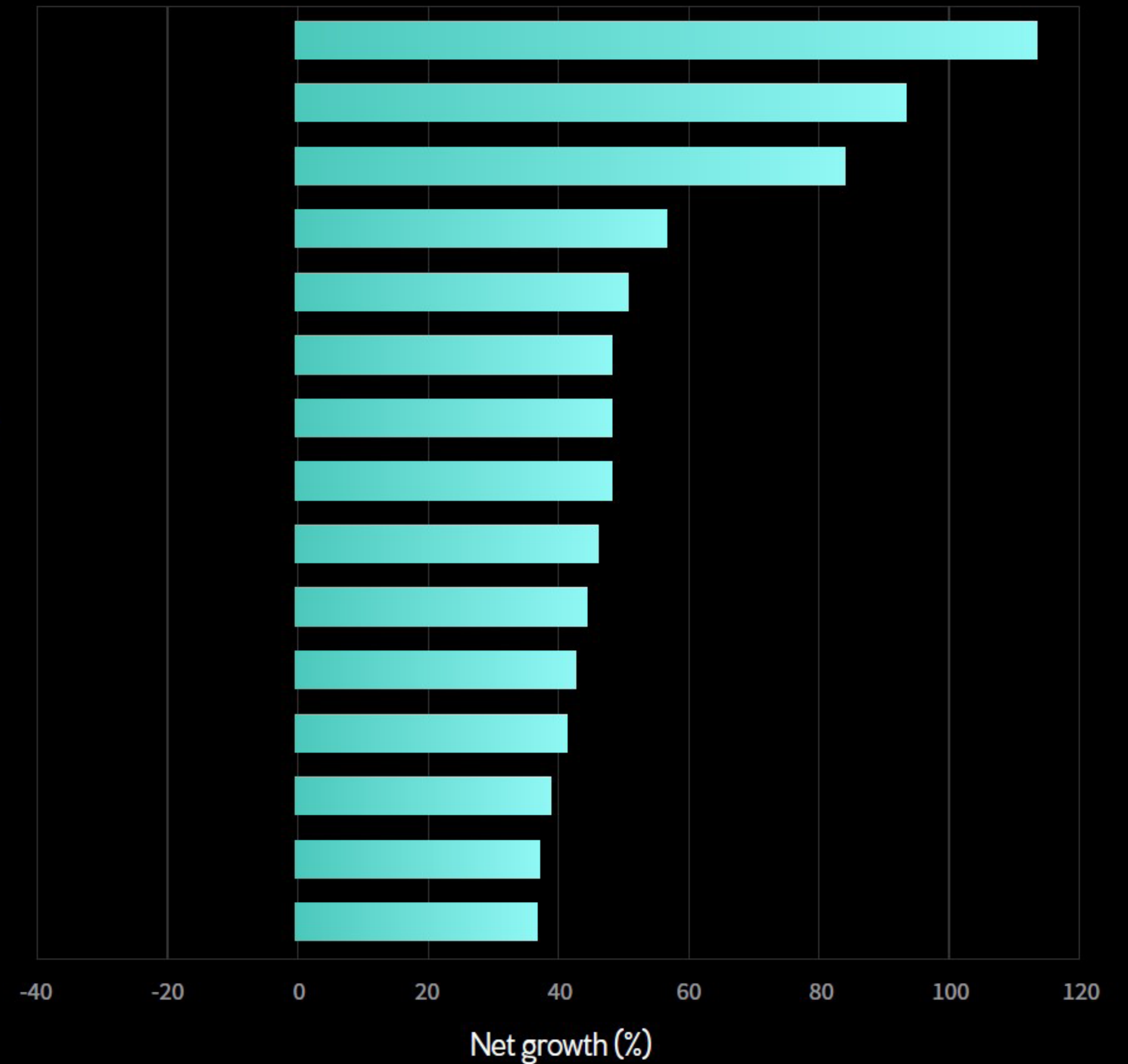
# The future of hiring – AI Machine Learning in recruitment selection



**by 2030,  
170 million  
new jobs will  
be created,  
while 92  
million  
jobs will be  
displaced.**

### Top fastest growing jobs

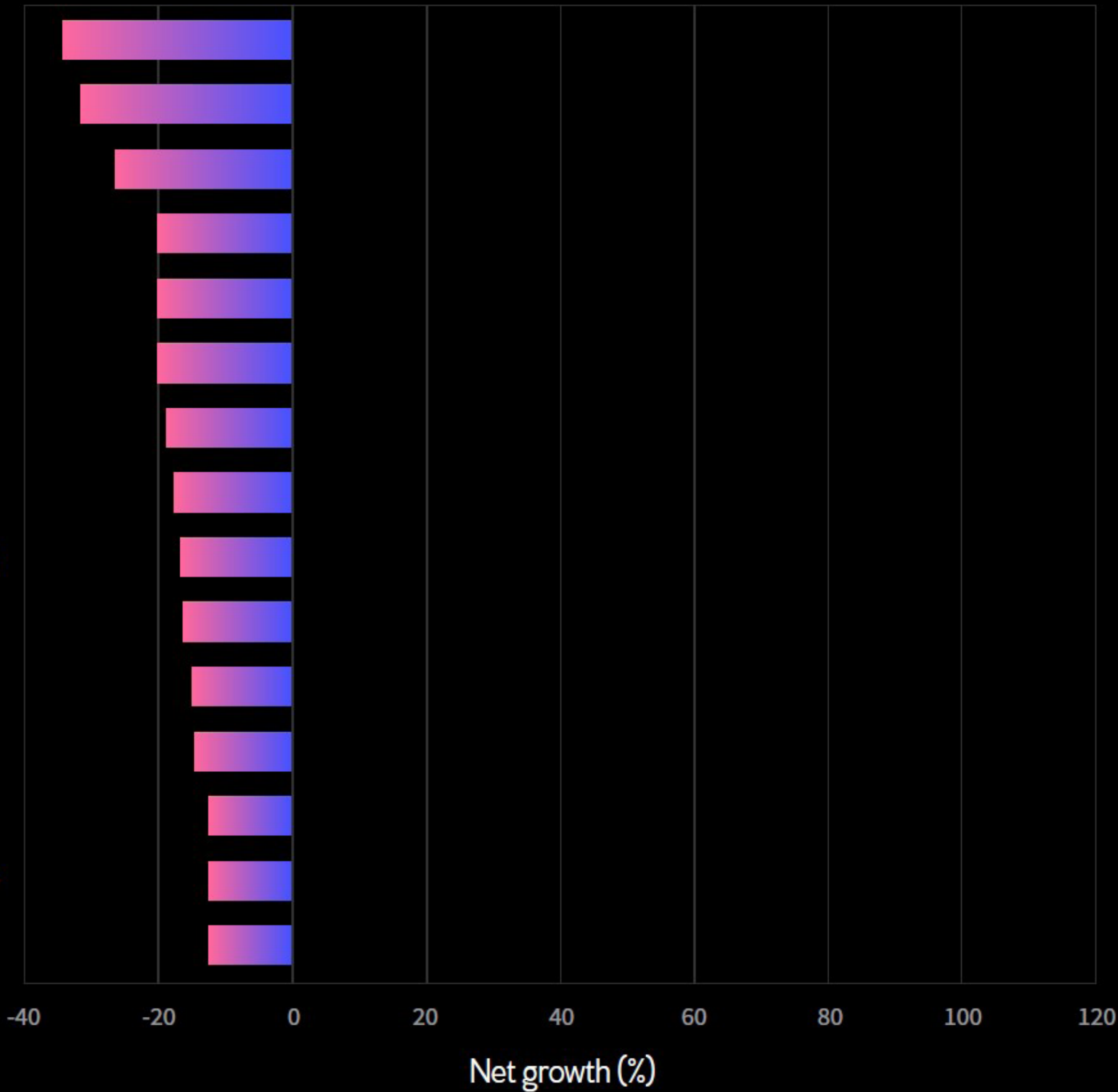
- Big Data Specialists
- FinTech Engineers
- AI and Machine Learning Specialists
- Software and Applications Developers
- Security Management Specialists
- Data Warehousing Specialists
- Autonomous and Electric Vehicle Specialists
- UI and UX Designers
- Light Truck or Delivery Services Drivers
- Internet of Things Specialists
- Data Analysts and Scientists
- Environmental Engineers
- Information Security Analysts
- DevOps Engineer
- Renewable Energy Engineers





Top fastest declining jobs

- Postal Service Clerks
- Bank Tellers and Related Clerks
- Data Entry Clerks
- Cashiers and Ticket Clerks
- Administrative Assistants and Executive Secretaries
- Printing and Related Trades Workers
- Accounting, Bookkeeping and Payroll Clerks
- Material-Recording and Stock-Keeping Clerks
- Transportation Attendants and Conductors
- Door-To-Door Sales Workers, News and Street Vendors, and Related Workers
- Graphic Designers
- Claims Adjusters, Examiners, and Investigators
- Legal Officials and Secretaries



AI can identify transferable skills in candidates from diverse backgrounds, effectively bridging the gap between available positions and suitable talent.

# Impact of AI on recruitment

## 1. Faster & more efficient hiring

AI automates tedious tasks like resume screening, interview scheduling, and candidate matching, making hiring much faster and more efficient.

## 2. Shift to skill-based hiring

Traditional hiring based on degrees and job titles is shifting toward a more skill-based approach. AI helps assess actual competencies rather than just credentials.

## 3. Enhancing diversity & inclusion

When implemented correctly, AI can help create fairer hiring processes by reducing human biases. However, as we will see, this is not always the case.

**Unilever has leveraged AI to streamline its hiring process, reducing the time to fill positions from four months to just four weeks, resulting in a 75% decrease in hiring time.**

[Source: wikipedia.com](https://www.wikipedia.com)

### Benefits of AI

### Share of respondents

Saves time	67%
Removes human bias	43%
Delivers best candidate matches	31%
Saves money	30%

[Source: demandsage.com](https://www.demandsage.com)



```

import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.linear_model import LogisticRegression
from sklearn.metrics import classification_report

# Example data with a bias favoring male candidates
data = {
    'years_experience': [1, 2, 3, 4, 5, 6, 7, 8, 9, 10],
    'gender': ['male', 'male', 'male', 'male', 'male', 'female', 'female', 'female', 'female', 'female'],
    'hired': [1, 1, 1, 1, 1, 0, 0, 0, 0, 0] # 1 = hired, 0 = not hired
}

# Create DataFrame
df = pd.DataFrame(data)

# Convert categorical variable 'gender' to numerical values
df['gender'] = df['gender'].map({'male': 1, 'female': 0})

# Define features and target variable
X = df[['years_experience', 'gender']]
y = df['hired']

# Train-test split
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)

# Train logistic regression model
model = LogisticRegression()
model.fit(X_train, y_train)

# Make predictions
y_pred = model.predict(X_test)

# Evaluate results
print(classification_report(y_test, y_pred))

```

# Threats & challenges

1.

## AI bias in hiring

One major concern is bias in AI models. If an AI system is trained on biased historical data, it can reinforce discrimination instead of reducing it. A well-known example is **Amazon's AI hiring tool, which unintentionally penalized female applicants.**

2.

## Lack of transparency 'Black boxes'

Another challenge is the lack of transparency. Many AI-driven hiring tools function as 'black boxes,' meaning employers and candidates don't fully understand how hiring decisions are made.

3.

## Legal & ethical compliance

AI in recruitment falls under strict regulations like the EU AI Act and GDPR, which classify AI-based hiring tools as 'high risk.' Companies must ensure compliance to avoid legal and ethical violations.



The background features a stylized illustration. On the left, a blue-toned robot head is shown in profile, facing right. It has a circular sensor on its forehead and a complex network of wires and components visible inside its head. On the right, a pink-toned human head is shown in profile, facing left. Above the human head is a glowing orange lightbulb with a network of lines and nodes around it, suggesting a neural network or thought process. A beam of light emanates from the robot's eye area, pointing towards the human head.

FAVORED DEMOGRAPHICS

**“If past recruitment practices favored certain demographics, the machine learning model might continue this trend, disadvantaging other groups.”**

# Opportunities for Improvement

1.

## Bridging skill gaps

AI helps companies match candidates based on skills rather than experience, which can help address labor shortages.

2.

## Supporting workforce planning

Predictive analytics allow businesses to optimize workforce planning by forecasting talent needs and improving retention strategies.

3.

## Enhancing candidate experience

AI chatbots and virtual assistants streamline the hiring process, providing instant responses and improving engagement with job seekers.

**“AI can identify transferable skills in candidates from diverse backgrounds, effectively bridging the gap between available positions and suitable talent.”**

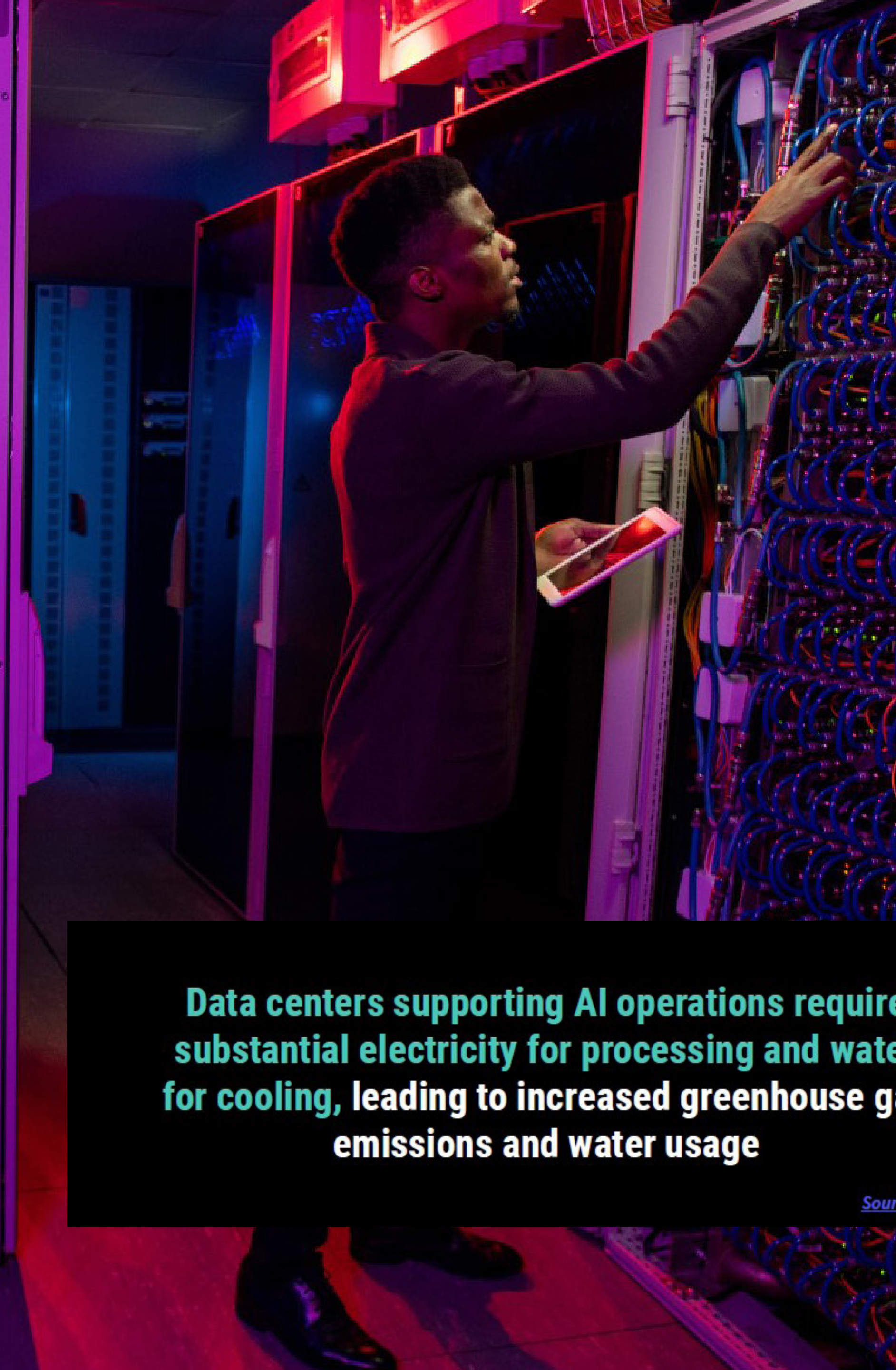


A woman with blonde hair and glasses, wearing a dark blazer, is looking down at a tablet computer. A man in a light blue shirt is standing next to her, looking at the same tablet. The background is a blurred office setting. The image has a blue-to-pink gradient overlay.

## HIGHER ACCEPTANCE RATES

**“According to Forbes, candidates selected by a machine (*rather than a human*) have a higher chance of passing an interview and receiving a job offer and an 18% higher chance of accepting a job offer when offered.**





**Data centers supporting AI operations require substantial electricity for processing and water for cooling, leading to increased greenhouse gas emissions and water usage**

*Source: [unep.org](https://www.unep.org)*

# Environmental Concerns

1.

## High energy consumption data centers

AI models require extensive computational power, increasing energy consumption and carbon emissions from data centers

Organizations must prioritize energy-efficient AI models and green data centers to minimize environmental impact.

2.

## Reduced paper waste & travel emissions

On the positive side, AI helps reduce paper waste and unnecessary travel for in-person interviews, contributing to sustainability efforts.

# Key Recommendations

## 1. Implement bias mitigation strategies

Companies should audit AI models for fairness and continuously refine algorithms to prevent discrimination.

## 2. Companies should audit AI models for fairness and continuously refine algorithms to prevent discrimination.

AI hiring decisions must be explainable so candidates and employers understand why a certain candidate was selected or rejected.

## 3. Align with legal regulations

Organizations must comply with laws such as the EU AI Act and GDPR to ensure ethical AI usage.

## 4. Maintain human oversight

Finally, AI should support—*not replace*—human decision-making. Recruiters must have the final say to ensure fair and balanced hiring.



**Questions?**