

# □ Case Study: AI-Powered Applicant Tracking System (ATS) with Smart Screening

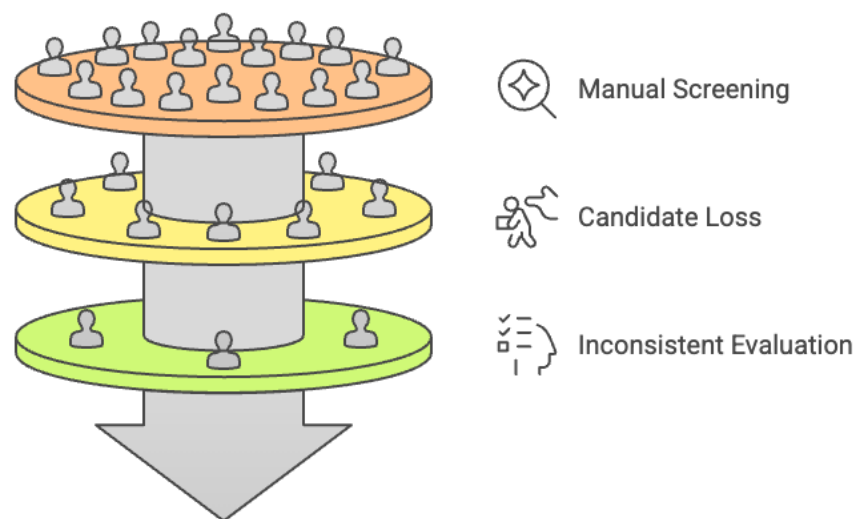
## □ Client Profile

A nationwide retail chain managing high volumes of applications across retail stores and corporate roles.

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## □ Business Challenge

### Recruitment Process Bottlenecks



The recruiting team faced significant challenges:

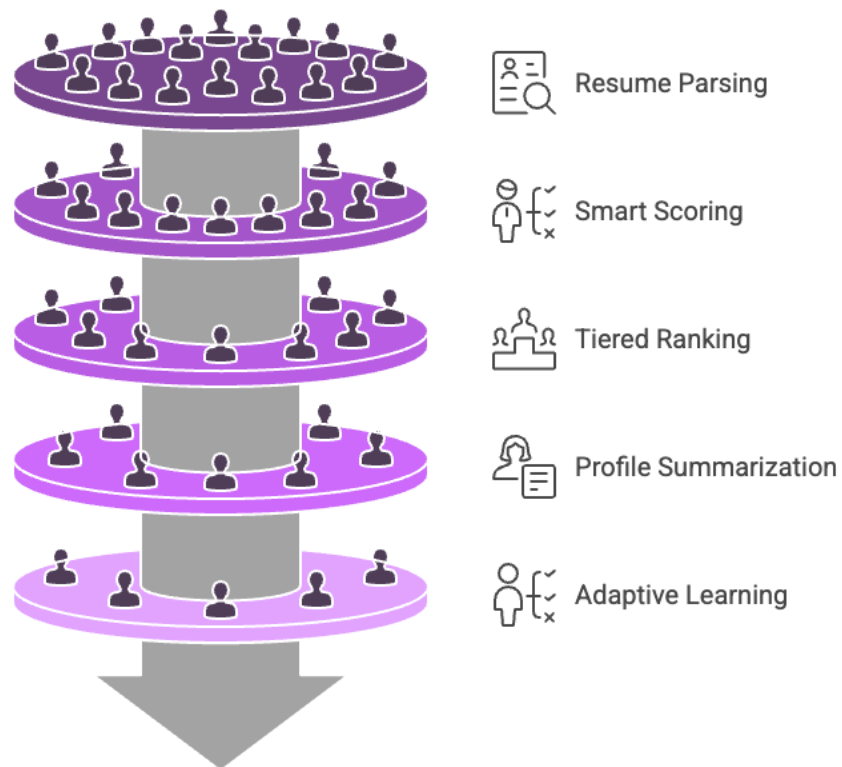
- **Thousands of resumes** per job posting created a backlog and delayed response times.
- **Manual screening** was inconsistent and time-consuming.
- Good candidates were often lost to competitors due to **slow hiring cycles**.
- Lack of standardisation led to **inconsistent evaluation criteria**.

The company sought to enhance its ATS with **AI-driven resume parsing and ranking** to improve speed, consistency, and fairness.

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## □ Solution Approach

### AI-Driven Candidate Selection Process



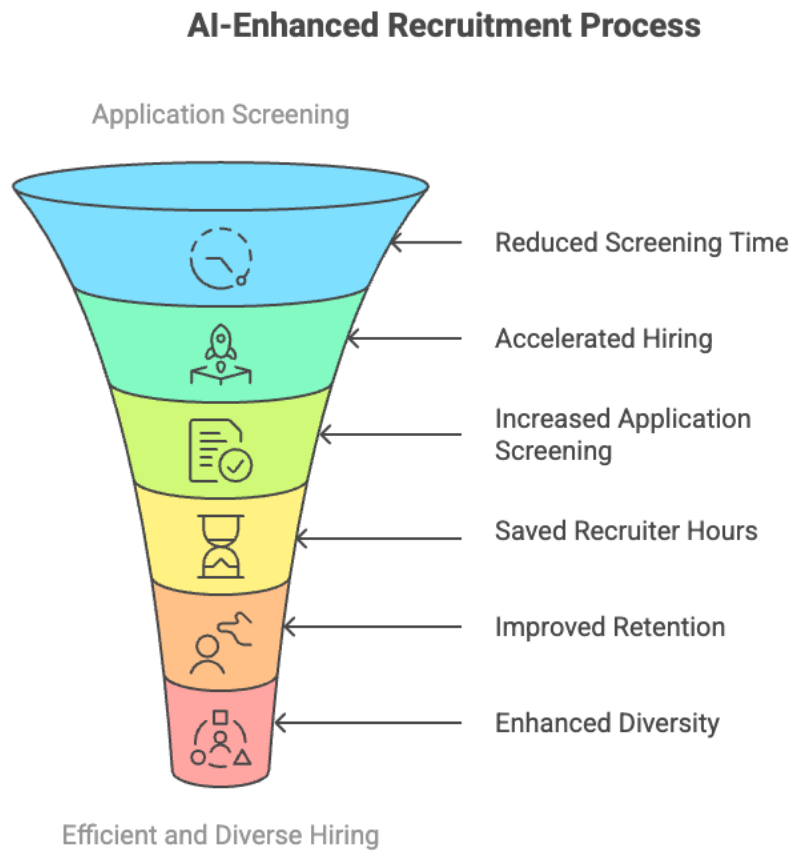
We augmented the existing ATS with an intelligent AI screening module.

### Key Features

- **Resume Parsing & NLP Processing:**
  - OCR and NLP were used to parse diverse resume formats into structured data.
  - Resume content was compared against job descriptions using a **transformer-based classifier** and a custom scoring algorithm.
- **Smart Candidate Scoring:**

- Factors like experience, education, keyword match, and inferred soft skills (e.g., leadership traits) were analysed.
  - An **LLM-powered skills ontology** and keyword match engine ensured precise filtering.
  - Bias controls ensured the exclusion of demographic indicators (e.g., names, gender).
  - **Tiered Candidate Ranking:**
    - Candidates are grouped into **Highly Qualified, Potential Fit, and Under-qualified** using intuitive colour-coded tiers in the ATS.
  - **Summarised Profiles:**
    - GPT-4 generated **1-2 sentence summaries** for top candidates (e.g., "5 years retail experience, exceeded sales targets").
  - **Adaptive Learning Loop:**
    - The AI improved over time based on recruiter selections and outcomes, refining its scoring logic.
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## ✓ Results & Benefits



- **Initial screening time** reduced from **2 weeks to 2 days**.
- **Time-to-fill dropped by 40%**, accelerating hiring and improving offer acceptance rates.
- Over **10,000 applications screened** in 3 months.
- **~300 recruiter hours saved** from manual triage.
- **Retention rate of new hires increased by 15%**, signalling better alignment with role expectations.
- Greater **diversity in shortlists**, surfacing skilled candidates who may have been overlooked manually.

Recruiters reported lower burnout, higher efficiency, and the ability to focus more on candidate engagement and employer branding.

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## □ User Impact

### How to balance AI and human roles in recruitment?



Initial concerns around AI "replacing" recruiters turned into appreciation:

*"It's like having a colleague who instantly reads every resume and tells me where to look first."*

- Recruiters remained in control of final decisions.
  - Human judgment focused on interviews and relationship-building, not screening grunt work.
  - Faster applicant response times improved the overall **candidate experience**.
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## □ **What's Next**

Following success in retail roles, the company is:

- **Scaling the AI screening** company-wide across all departments.
- Extending the system to **internal job postings** to identify talent for promotions.

The upgraded ATS with AI screening proved to be a **strategic enabler** for faster, fairer, and more effective hiring at scale.