



Inside the **AI**, Architecture of SmartRecruiters

How **AI agents, copilots**, and
automation power modern talent
acquisition

Third Edition, July 2025

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Disclaimer: AI-based tools are subject to regulation in some jurisdictions. Readers are advised to use these tools in compliance with their organization's internal policies and applicable local regulations.

This document represents the state of AI at SmartRecruiters as of June 2025. Due to the speed at which AI technology is evolving, this document will be updated as our AI technologies grow and change. SmartRecruiters is committed to adapting our offerings to comply with evolving legislation around the globe.

Introduction: The rise of **Artificial Intelligence**

The accelerating pace of technological change, evolving hiring challenges, and ongoing cost-related business pressures have created great interest in using artificial intelligence (AI) in recruitment to unlock hiring efficiency. Now that AI and Generative AI (GenAI) are part of many people's daily lives, more and more companies are interested in safely integrating AI into their business practices.

The Benefits of AI in **Talent Acquisition**

Talent Acquisition (TA) is one of the industries best positioned to benefit from the latest wave of AI technologies. Among the many opportunities AI presents, three areas stand out as the most impactful for TA: productivity, customization, and insights

Productivity

AI significantly boosts productivity in talent acquisition by automating repetitive tasks such as resume screening, interview scheduling, and initial outreach.

Customization

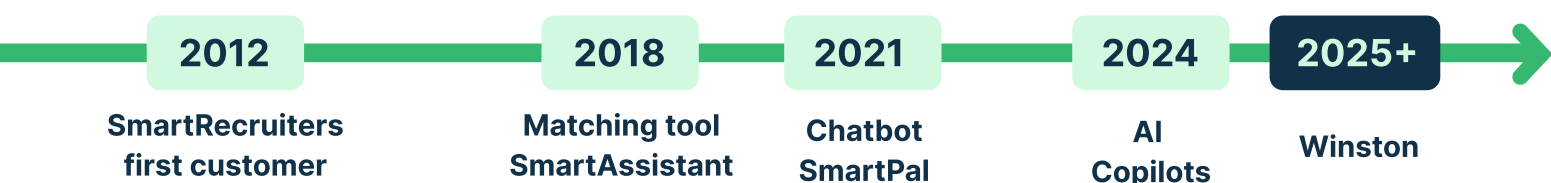
With AI, recruiters can tailor job recommendations, communication, and onboarding experiences to individual candidates at scale by analyzing behavior, preferences, and qualifications.

Insights

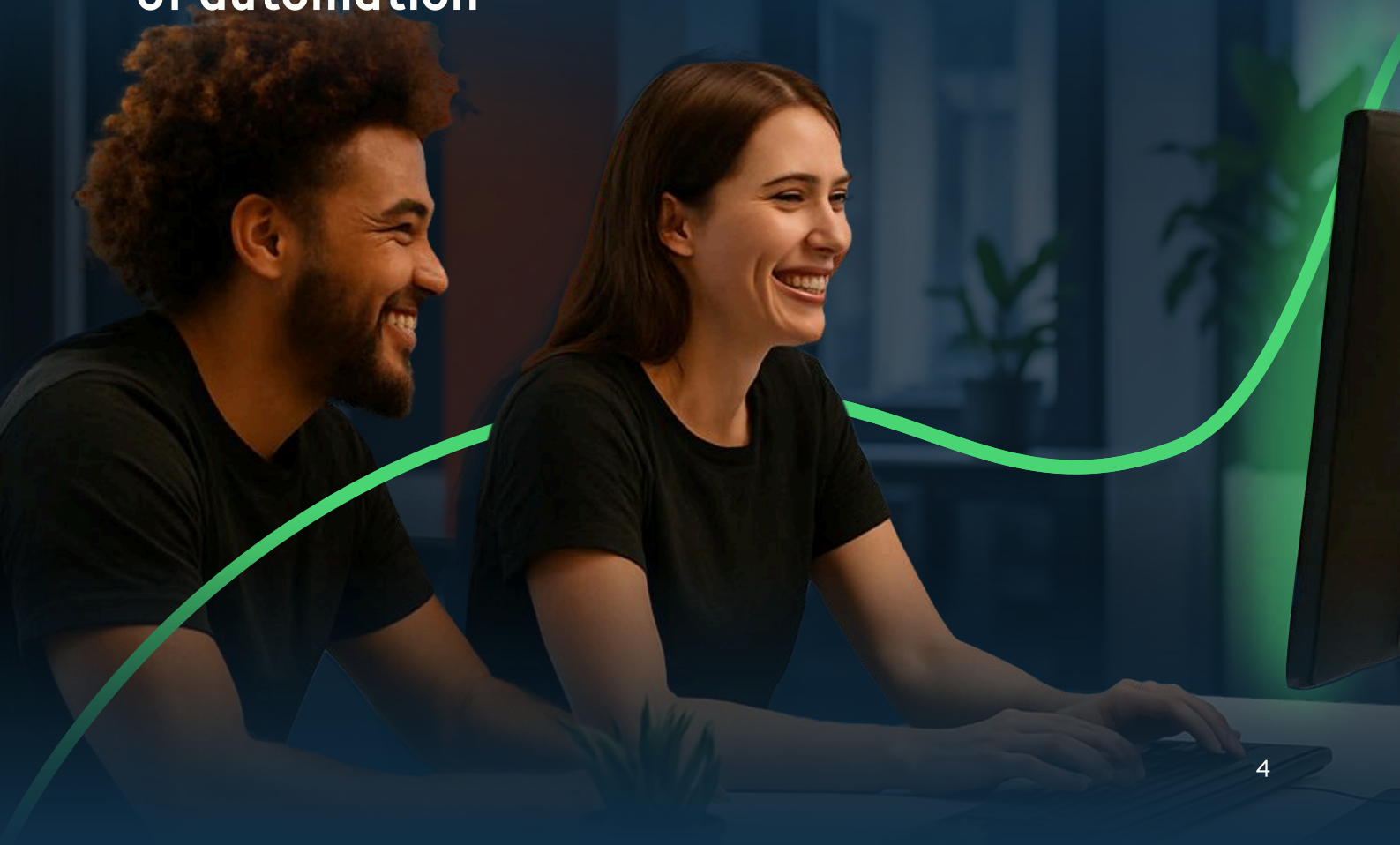
AI-powered analytics offer deep insights into hiring trends, candidate behaviors, and process performance. These insights help talent teams identify bottlenecks and forecast hiring needs.

AI at SmartRecruiters

SmartRecruiters began its AI journey in 2018 with the release of SmartAssistant, an AI-based matching tool. SmartPal, a candidate-facing chatbot, was released in 2021. In 2024, the company released three AI Copilots. As we go into the second half of 2025, Smartrecruiters is doubling down on AI with the launch of Winston, an AI-powered recruiting companion who anticipates, automates, and adds a touch of joy to the hiring process.



The SmartRecruiters mission
To humanize hiring in the age of automation



AI Overview



AI Technologies at SmartRecruiters

SmartRecruiters customers can choose from various AI tools to reduce recruiter workload and personalize relationships with candidates at scale.

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Winston Agents

Winston Agents represent SmartRecruiters' latest suite of AI products that harness cutting-edge generative AI to manage complex workflows and coordinate multiple collaborators seamlessly.

AI Copilots

AI Copilots are powerful, intuitive enhancements within the SmartRecruiters platform that help recruiters automate and accelerate everyday tasks.

Point Solutions

Point Solutions represent the first generation of AI products at SmartRecruiters, each designed to address specific tasks or processes with focused functionality. A full overview of these items can be found in the appendix.

Winston Agents

Product	AI/ML technique ¹	Customer Access
Winston Companion Conversational engagement for recruiting teams to streamline hiring tasks, such as screening, shortlisting, scheduling, and collaboration.	Winston Companion uses a mixture of LLMs and Deep Learning models to manage conversation flow. Currently, AWS Bedrock is used as the LLM provider (specifically, various Claude family models).	Add-on product available to users of SmartRecruit
Winston Chat Conversational engagement for candidates, including job discovery, screening, scheduling, and question handling.	Winston Chat uses LLMs to maintain the natural conversation flow. It also leverages RAG techniques to provide answers to free-form questions based on content from career sites and additional resources provided by the users. Winston Chat currently uses Google Gemini models but is developed in an LLM-agnostic way, allowing for an easy switch to a different model if needed.	Add-on product available to users of SmartOS or as a stand-alone product for an existing HRIS Winston Chat is also available for SAP customers as 'SmartRecruiters Winston for SAP SuccessFactors
Winston Match Generates explainable match scores for incoming candidates.	Natural Language Processing (NLP): Since individuals represent themselves through written content such as resumes and cover letters, NLP helps convert human language into structured categories that can be processed by automated systems. Deep Learning: With access to extensive data on career paths, job applications, and hiring patterns, deep learning models help identify trends and insights into how candidates progress through their careers and how employers make hiring decisions. Generative AI: This enables the presentation of results in clear, natural language, making insights more accessible and easier to interpret.	Add-on product available to users of SmartRecruit
Winston Screen Generates screening questions and creates candidate shortlists and rankings based on the information provided.	Winston Screen leverages LLMs to suggest appropriate screening questions that should be asked based on the job details and what the ideal responses should be. Currently, AWS Bedrock is used as the LLM provider (specifically, various Claude family models).	Add-on product available to users of SmartRecruit

1. See the Glossary in the Appendix for definitions of AI-related terms.



Product	AI/ML technique ¹	Customer Access
Scorecard Copilot Drafts interview questions with GenAI	LLMs used are hosted on SmartRecruiters' regional cloud infrastructure to ensure data security for Customers	All customers of SmartOS
Job Ad Copilot Drafts job ads, including description and qualifications, with GenAI	Claude Sonnet 3.5 by Anthropic hosted on existing SmartRecruiters' regional cloud infrastructure to ensure data security for Customers	All customers of SmartRecruit
Communication Copilot Drafts candidate communications with GenAI	Claude Sonnet 3.5 by Anthropic hosted on existing SmartRecruiters' regional cloud infrastructure to ensure data security for Customers	All customers of SmartRecruit All customers of SmartCRM

SmartRecruiters' Approach to Privacy, Bias, and Data Protection

We take compliance and privacy as seriously as our customers do. The following list offers our approach to matters of privacy and compliance.

Data Privacy

For all of our AI products, except Winston Match, every piece of candidate data used to train our models is anonymized, and the entire identification chain is broken. In other words, no personal data is used to train our algorithms or AI models; we remove:

- Names
- Age
- Sex
- Ethnicity
- Email Addresses
- Phone Numbers
- Employer Names
- University Names
- Other potentially biased identifiers from training data sets.

1. See the Glossary in the Appendix for definitions of AI-related terms.

Our subprocessor for Winston Match uses pseudo-anonymized data to train its models. Pseudonymization encodes critical identifying information so it cannot directly identify a person. SmartRecruiters is responsible for generating the pseudonymized data and holds the encryption key. This setup makes re-identification of PII quasi-impossible outside SmartRecruiters.²

Preventing Bias

SmartRecruiters does not collect data such as age, sex, sexual orientation, ethnicity, political affiliation, or religion on behalf of its Customers. The AI systems do not process photos or videos. Inputs that are collected, which for the most part are chosen by customers, are anonymized/pseudonymized to reduce the risk of bias. For example, we remove the names of universities from training data and ranking generation to ensure hidden human bias does not lead to biased model results.

As required by New York City Law 144, the SmartAssistant and Winston Match AI-based product passes an annual independent third-party audit for bias.

Please see the section [How SmartRecruiters mitigates bias](#) for more information on our approach to bias.

Internal Development and Data Hosting

All machine learning models, including LLMs, are hosted on secure cloud infrastructure to ensure data security for customers³. Models include a combination of models developed by SmartRecruiters and our technology partners, customized open-source models, and third-party models available within the cloud services offering in locations fully compliant with laws, regulations, and our security and data privacy policies⁴.

Data Security

Data always remains on the customer's instance of SmartRecruiters. Please see [the appendix](#) for a depiction of the SmartRecruiters data environment.

Legal Oversight

The SmartRecruiters Data Protection Officer (DPO) is involved in the review of relevant privacy regulations to provide recommendations to ensure that products and processes comply. SmartRecruiters has an internal audit team and regularly undergoes mandatory and self-imposed audits.

2. Please contact your CSM or account manager for more information on how our Winston Chat subprocessor uses pseudo-anonymized data to train its models.

3. SmartRecruiters has data centers in the United States, Germany, and Australia. Customers choose their data location preference before implementation.

4. All subprocessors with the exception of Twilio host their data in the EU. Twilio is a subprocessor Winston Chat and SmartPal with robust security and compliance standards. [See here](#)

Human Decision-Making

SmartRecruiters' AI products don't replace human decision-making in hiring. AI-generated scores cannot be used as a criterion for automating hiring processes such as making offers, rejecting candidates, or moving candidates to a new stage. While human oversight is part of the product design, users should still be trained in AI literacy so they don't overweigh said recommendations.

Customers Have Full Control

SmartRecruit, SmartRecruiters' core applicant tracking software, has been designed for ease of configuration around compliance-related topics. With just a few clicks, customers can control user access to specific features, set local preferences for candidate data deletion, confidentially capture candidate diversity data, and build compliance reports. Customers always have a choice of which AI tools to use in their recruitment processes. For example, copilots can be toggled on and off from the SmartRecruiters Admin panel, and Winston Products can be managed from the AI Control Hub.

Security Credentials

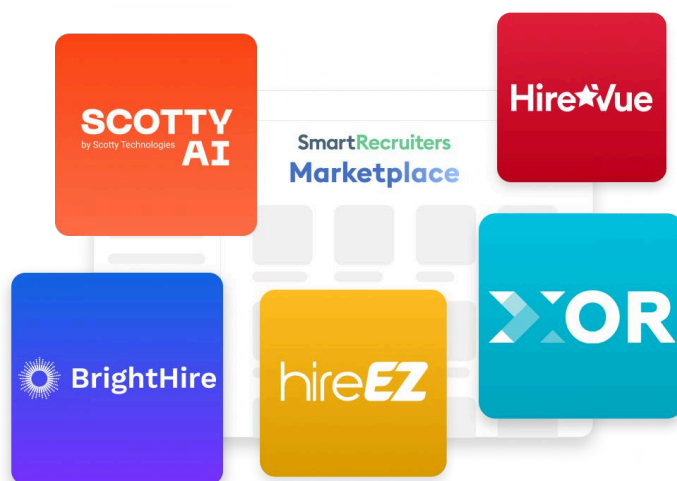
SmartRecruiters is ISO 27001 certified and undergoes an independent, third-party SOC 2 Type II audit annually. In addition, we are currently working towards the newest gold standard for AI security with an ISO 42001 certification.

Marketplace for AI-based Point Solutions

Connection to the talent acquisition ecosystem is one of the core principles of SmartRecruiters.

Our Marketplace of hundreds of partners offers many AI-based solutions, including tools for sourcing, assessments, interviewing, and onboarding.

SmartRecruiters' open APIs enable customers to configure connections with systems outside the marketplace.



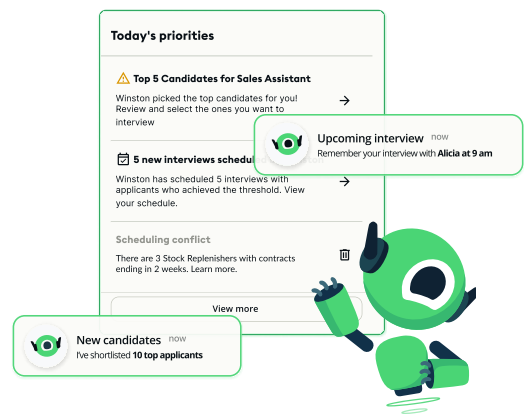
AI Products at SmartRecruiters

Winston Agents

Winston Companion

Winston Companion is an AI-powered hiring agent for hirers that gives teams the tools they need to screen candidates, schedule interviews, and make collaborative decisions, without the usual back-and-forth or delays.

Whether you're filling one role or building an entire team, Winston Companion helps you move faster, stay organized, and hire with confidence.



Companion automates the initial screening process based on the criteria you define, so only qualified and engaged candidates make it through. This reduces screening time by up to 75% while keeping hirers in full control of who moves forward. With AI-powered scheduling, Winston Companion eliminates the hassle of coordinating interviews by facilitating scheduling for qualified candidates. Our powerful AI surfaces availability, handles rescheduling if needed, and keeps the process moving, reducing time-to-schedule by up to 90% with minimal manual input.

“Store managers are always on the move, so automating processes like screening and interview scheduling is a game-changer. With AI recognizing patterns and creating efficiencies, we can free up store teams to focus on what matters most, running their stores.”

**FRASERS
GROUP**

Key Features

- Rating interviewed candidates to reduce the time spent between interviews
- Shortlisting promising applicants via a conversational chat
- Bulk schedule interviews through Winston

How Winston Companion Works

Winston Companion layers onto the SmartOS as a conversational agent that facilitates hiring for recruiters and hiring managers. As a natively integrated product in the SmartRecruiters ecosystem, Winston Companion uses ATS data. These integrations allow Winston Companion to access up-to-date information on open positions, job locations, candidate statuses, interviewer

availability, and more. To enhance automation, administrators can define workflows within the ATS that Winston Companion can act upon, for example, automatically scheduling interviews for candidates who meet predefined screening criteria.

Importantly, all data accessed by Winston Companion remains within the customer's instance and is not transferred or stored outside the SmartRecruiters/subprocessor infrastructure. Personally identifiable information (PII) is anonymized or hashed before being processed by the underlying LLM, and no customer data is used to train external models such as ChatGPT or other LLM products.

Once access is configured and workflows are in place, Winston Companion uses LLM technology to conduct natural, real-time conversations with candidates. It assists users in discovering and applying to relevant roles, delivers role-specific screening questions, coordinates interview scheduling, and re-engages candidates who have left applications incomplete.

Winston Companion is designed with guardrails to prevent misuse. It actively redirects conversations that fall outside the recruiting context and will not engage in inappropriate, harmful, or hateful language. The system is regularly audited and tested by third-party vendors to ensure it delivers a professional, accurate, and compliant candidate experience.

Languages

Winston Companion is available in English, French, German, Spanish, Portuguese, and Italian.

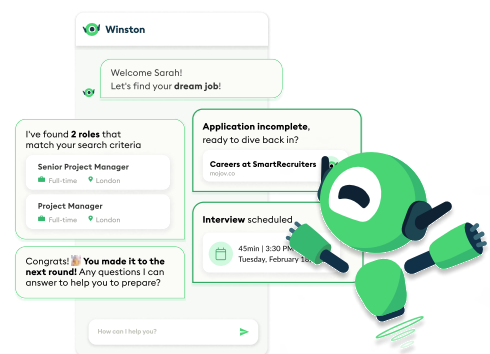
Winston Companion scored **over a 98%** on a **Vijil Trust audit measure**, dimensions such as fairness, toxicity, and GDPR!

Winston Chat

Winston Chat is an AI-powered hiring agent designed to boost candidate engagement, reduce admin work, and accelerate hiring. Unlike rule-based chatbots, Winston Chat leverages advanced LLMs to personalize job search, guide candidates through applications, and automate repetitive tasks, from screening to scheduling.

Available on web, SMS, and WhatsApp, it meets candidates where they are, keeping them engaged

every step of the way. Recruiters save time with over 80% fewer manual tasks, while companies see 2x higher application conversion rates and over 70% faster hiring cycles. Winston Chat can be purchased as part of the SmartRecruiters ecosystem or as a standalone product.



Key Features

- Chat-to-apply workflows for mobile-first candidates
- Personalized FAQs and job-specific Q&A dialogs
- Instant scheduling and rescheduling via SMS or web
- Real-time updates and reminders on application status, interviews, and next steps
- 24/7 responsiveness without recruiter input
- Connection to SmartCRM communities⁵

Winston Chat is now available as 'SmartRecruiters Winston for SAP SuccessFactors' so SAP customers can also enjoy the 80% reduction in administration work through conversational job discovery, screening, and scheduling

How Winston Chat Works

Administrators configure Winston Chat by supplying organizational information through publicly available URLs, such as career sites and internal knowledge bases, and through secure API connections to their applicant tracking system (ATS). These integrations allow Winston Chat to access up-to-date information on open positions, job locations, candidate statuses, interviewer availability, and more. To enhance automation, administrators can define workflows within the ATS that Winston Chat can act upon—for example, automatically scheduling interviews for candidates who meet predefined screening criteria.

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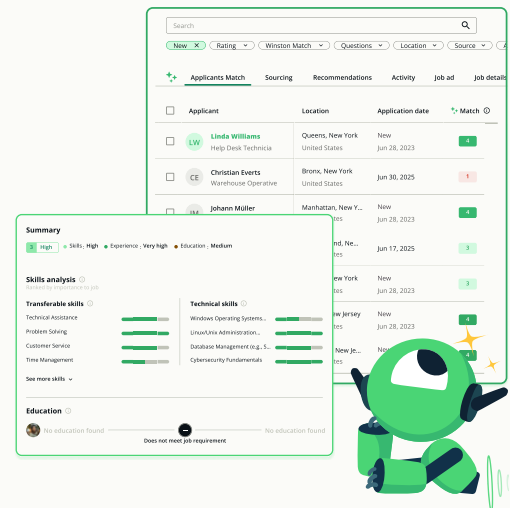
Winston Chat scored **over a 96%** on a **Vijil Trust audit measure**, dimensions such as fairness, toxicity, and GDPR!



5. Feature not available as part of SmartRecruiters Winston for SAP SuccessFactors

Winston Match

Winston Match is a next-generation AI-powered talent matching solution built to transform how recruiters identify and prioritize candidates. Unlike traditional applicant screening tools that rely on keyword matching or rigid filtering logic, Winston Match uses advanced natural language processing and deep learning to assess candidates in a more human-like, contextual way. It understands not just what's on a resume, but what it means, capturing nuances in career trajectories, job roles, skill development, and industry relevance.



The result is a smarter, faster, and fairer approach to talent discovery. Recruiters receive a clear, explainable match score that offers a comprehensive view of a candidate's fit for a specific role. This allows teams to move beyond manual screening and instinct-based decision-making, instead relying on a data-driven tool that improves both efficiency and quality of hire. Winston Match is designed to build trust, reduce stress, and empower recruiters to focus on what matters most: engaging top talent.

Key Features

- AI match scoring
- Industry-specific context
- Skill surfaced from market data
- Explainable insights
- Instant shortlist generation

How Winston Match Works

At the core of Winston Match is a sophisticated AI engine that combines LLMs, predictive analytics, and explainable scoring to streamline and improve the candidate evaluation process. When a resume is submitted, the system parses the content and interprets a candidate's background through a contextual lens, recognizing not only explicit skills but also inferred capabilities, patterns in career growth, and alignment with industry-specific expectations. This allows the model to detect high-potential candidates even when key qualifications are not worded in exact terms.

Each candidate is evaluated through a multi-dimensional scoring framework that generates a single, transparent match score. What sets Winston Match apart is its explainability: recruiters can access detailed reasoning behind the score, including skills breakdowns, sub-scores, and narrative summaries that provide clarity into the decision logic. This transparency not only builds confidence in the tool but also supports consistency across hiring teams.

Winston Match also significantly reduces the time spent on early-stage screening. The platform automatically ranks applicants, helping recruiters quickly identify the most relevant

profiles and move them forward. By integrating directly into existing recruiting workflows, Winston Match fits seamlessly into day-to-day operations. Its bias-aware matching logic further ensures that candidate evaluations are fair, equitable, and aligned with broader DEI goals. Ultimately, Winston Match enables hiring teams to make faster, better-informed, and more inclusive hiring decisions at scale.

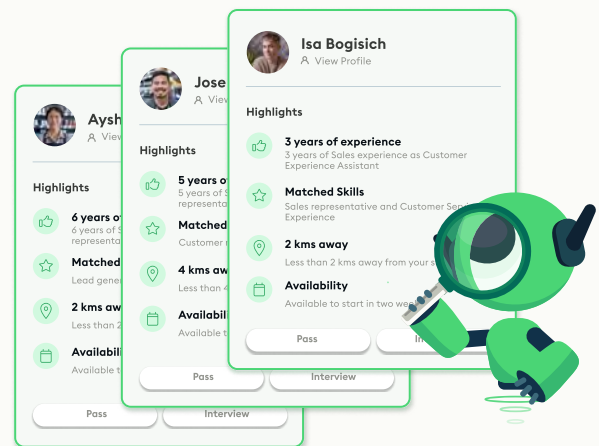
Importantly, all data accessed by Winston Match remains within the customer's instance and is not transferred or stored outside the SmartRecruiters/subprocessor infrastructure. Personally identifiable information (PII) is pseudonymized and encrypted before being processed by the underlying LLM and is used for the model retraining. SmartRecruiters only holds the encryption key of the pseudonymized data used for the model retraining, ensuring that the data will not be allowed to re-identify a natural person.

Languages

Dutch, English, French, German, Italian, Portuguese, Spanish, Swedish.

Winston Screen

Winston Screen is a structured screening solution that uses AI to help generate targeted, job-specific questions — replacing traditional resume reviews with a faster, fairer approach. Designed for frontline and skills-based roles, where resumes often fail to capture essential information, Winston Screen helps hiring teams surface qualified candidates faster, more consistently, and with less effort. Instead of relying on past job titles or formatting, it focuses on what truly matters: skills, availability, licenses, and other job-critical criteria.



Whether your team prefers assisted setup or a fully automated approach, Winston Screen ensures a consistent, fair, and scalable process that empowers recruiters and hiring managers alike. The result is a trusted shortlist of candidates that reflects actual job readiness, not résumé polish.

Key Features

- Automated candidate rating
- Customizable question rating
- AI-suggested screening questions
- One-click question set up
- Seamless integration into workflows
- Intelligent screening for required skills

How Winston Screen Works

Winston Screen transforms the early stages of hiring by automating and improving candidate screening. Here's how it works:

- 1. Input the Job Requirements** - Recruiters define job-specific criteria such as licenses, shift preferences, and must-have skills. Winston can also suggest questions based on the job description using AI.
- 2. Replace Resume Reviews with Smart Questions** - Instead of scanning resumes, candidates answer structured questions tailored to the role. These questions gather consistent, comparable data, something resumes rarely offer.
- 3. Automatic Ranking and Shortlisting** - Responses are automatically ranked using weighted scoring, making it easy to see which candidates meet the most important criteria. Recruiters can quickly identify top candidates and screen out unqualified applicants.
- 4. Human Oversight and Flexibility** - Teams retain control over the screening process with flexible AI settings, from full automation to guided question creation. Built-in oversight ensures fairness and alignment with company policies.

By standardizing and optimizing screening, Winston Screen reduces bias, saves time, and delivers more qualified candidates up to 5x faster and with 75% less manual review effort.

Winston Screen is being developed with the same security and compliance frameworks as all our AI products in terms of data processing and storage. You'll have the flexibility to use Winston Screen with or without AI capabilities - allowing you to adopt it at your own pace and in line with your organization's readiness.

Languages

English, French, German, Arabic, Chinese, Indonesian, Italian, Japanese, Korean, Portuguese, and Spanish.

AI Copilots

SmartRecruiters' AI Copilots make creating candidate emails and interview questions easier. Users receive draft text that they can modify before setting up scorecards or sending emails to candidates.

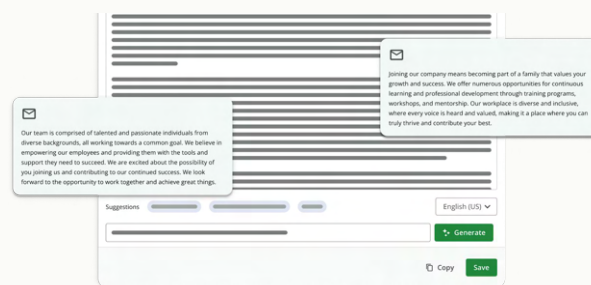
AI Copilots leverage Claude model LLMs whose prompts are enriched with information from the company instance to produce a custom output. Customer information is not used to train these models, only to customize output.

Data Use in AI Copilots

No data leaves the customer's instance of SmartRecruiters, and no additional data is stored. User prompts and company information are used to generate text and are not stored. No customer data is used to train a third-party vendor LLM (e.g., ChatGPT).

Communication Copilot

Coming up with compelling emails to send to interested candidates can be a challenge for recruiters who engage with a multitude of tasks each day.



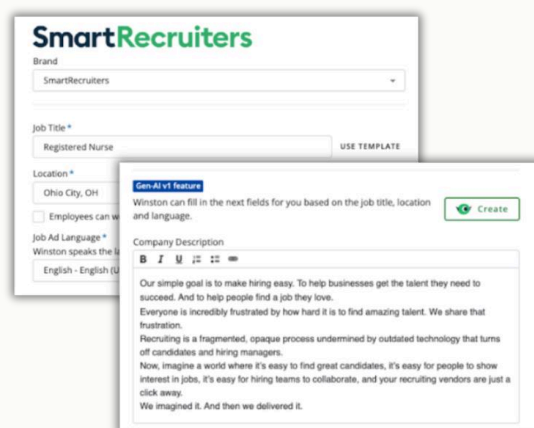
The Communication Copilot is designed to instantly create custom email messages based on user prompts and company information. Users can refine the text using simple prompts, edit the final version, and insert the content direction into the campaign editor. They can also copy and paste the text to use elsewhere.

Languages

The default language is English, and the Copilot is also available in Spanish, French, German, Italian, Portuguese, and Dutch.

Job Ad Copilot

Creating a job ad from scratch can be time-consuming and repetitive. Recruiters and hiring managers waste time retrieving or rewriting boilerplate content. Now, users can simply input job title, location, and language, and the copilot generates a job ad instantly, including company description, job description, and qualifications, based on your organization's past posts. The feature reduces the time and effort required to create job ads and improves consistency across postings.

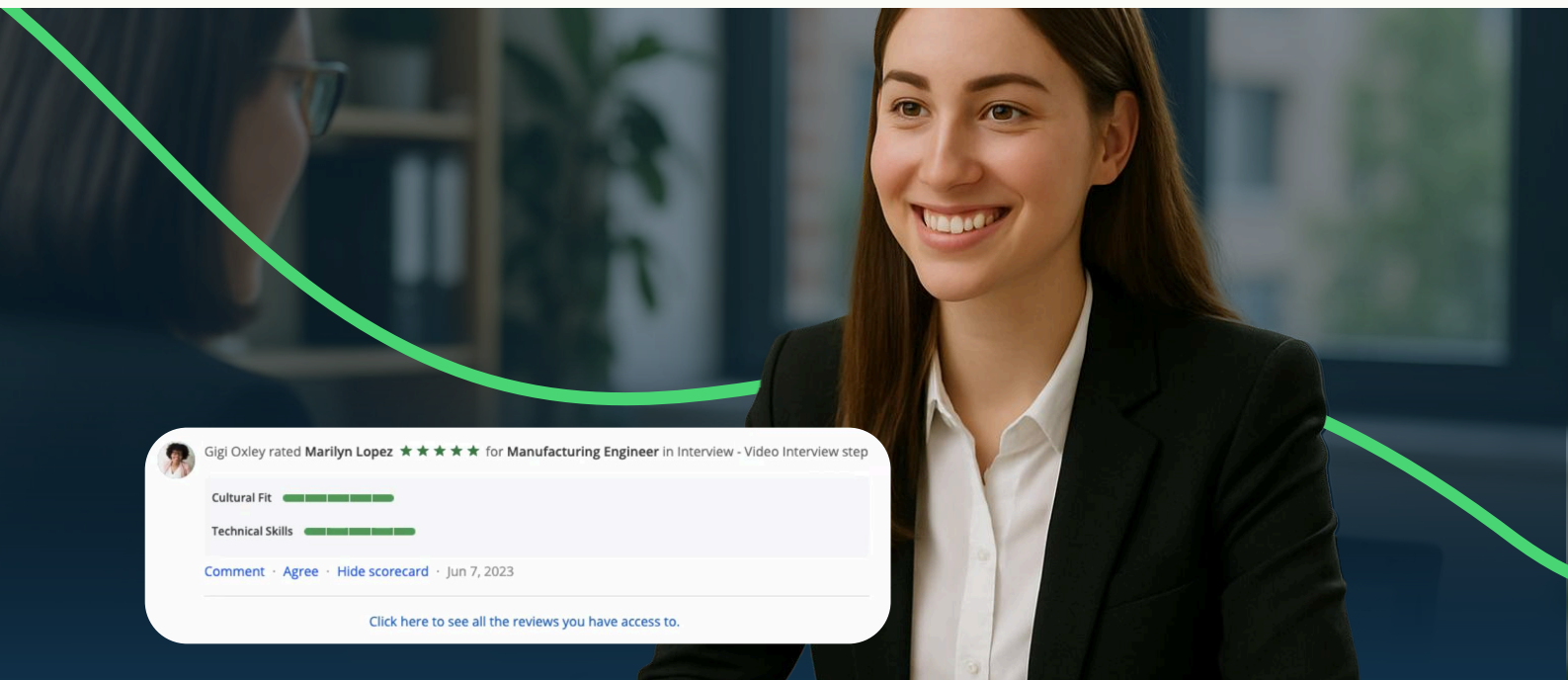


Languages

The default language is English, and the Copilot is also available in Arabic, Bulgarian, Chinese (traditional and simplified), Czech, Danish, Dutch, English (American & British), Estonian, Finnish, French, German, Greek, Hungarian, Indonesian, Italian, Japanese, Korean, Latvian, Lithuanian, Norwegian, Polish, Portuguese (Brazilian or Portuguese), Romanian, Russian, Slovak, Slovenian, Spanish, Swedish, Turkish, and Ukrainian.

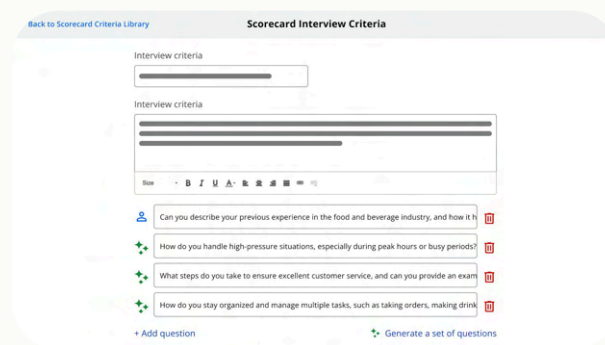
Scorecard Copilot

Using Interview Scorecards helps companies streamline the interview process and evaluate candidates equitably by assigning specific questions to different interviewers. The Scorecard Copilot can improve Scorecard adoption and help customers build a more robust Scorecard library quickly.



The Scorecard Copilot improves the ease of creating new interview questions on the Interview Scorecard by suggesting questions based on the job details, existing scorecard questions (if available), and scorecard criteria.

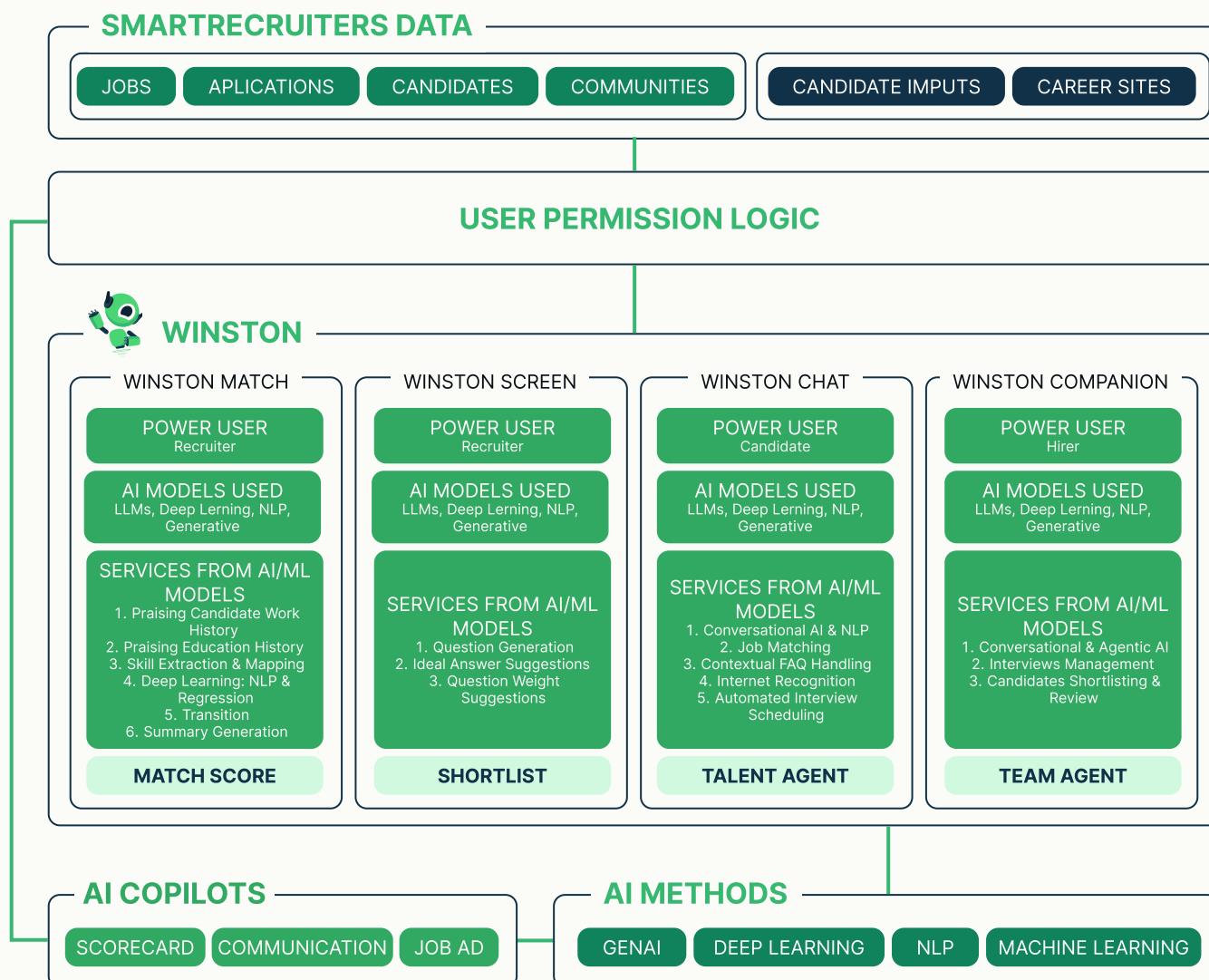
The Scorecard Copilot creates a batch of three AI-generated interview questions to be inserted directly into scorecards specific to the job role. Users can manually edit or remove the AI-generated questions.



Languages

The Scorecard Copilot is currently available in English.

AI Architecture at SmartRecruiters



At the foundation of Winston's AI architecture is user permission logic, critical because every AI-powered action, from parsing resumes to scheduling interviews, relies on data. Access to that data is always permission-based and role-aware. This governs every interaction with our models, keeping the system secure, compliant, and privacy-first.

On top of SmartRecruiters' permissioning core, AI copilots and Winston products interact with various AI techniques and models (each in a unique combination) to deliver outcomes to the user, whether recruiter, candidate, or hiring manager.

Visit the appendix for further information on the AI architecture of point solutions.

How SmartRecruiters Mitigates Bias and Boosts Trust

SmartRecruiters does not process sensitive demographic data such as age, gender, ethnicity, religion, or political affiliation. Additionally, the AI systems are not trained on photos or videos. Inputs that may influence AI recommendations are also subject to sanitization. For example, removing university names from both model training and ranking processes helps eliminate the impact of prestige bias, promoting more equitable candidate evaluation.

SmartRecruiters also incorporates external oversight and human judgment into its bias mitigation strategy. Products like SmartAssistant are audited annually by independent third parties, as required by regulations such as New York City's Local Law 144. Winston Chat recently scored over 96% from Vijil trust report, which measures several dimensions including security, toxicity, and fairness. Winston Match will also undergo a third-party audit this year.

Importantly, all AI-generated recommendations are designed to support, not replace, human decision-making, with customers retaining full control over how AI is used in their hiring process.

Design's Role in Bias Prevention and Trust

We made an important decision not to use a black-box approach to machine learning to produce automated decisions. While this concept lends itself well to domains such as medical image processing or autopilot systems, where a highly biased algorithm is desired, it would result in negative outcomes if applied to hiring decisions. This is why products like Winston Match are designed with recruiters to prioritize the order candidates are reviewed and not designed to make decisions in an automated way.

We do not develop custom AIs for each of our customers individually in order to avoid training algorithms on small and inherently biased data sets. Instead, Winston Match algorithms are trained on a very large data set containing job descriptions and profiles gathered over many years.

We have implemented clear AI labeling guidelines within our product to ensure compliance and enhance discoverability. Our approach uses consistent, contextual labeling that adapts across experiences and languages, enabling users to easily identify when AI is involved.

✦ AI

AI

✦

✦ AI

✦ IA

✦ KI

✦ IAI

The Future of AI at SmartRecruiters

Recruiting technology has long lagged behind the polished, intuitive experiences of consumer tech, leaving talent acquisition (TA) teams to navigate inefficiencies and fill the gaps. In today's competitive job market, where TA teams are lean, application volumes are overwhelming, and securing top talent is critical, organizations need more than just a traditional applicant tracking system. This is where AI steps in.

While point solutions and copilots are valuable for automating specific tasks, they can fall short in addressing the full complexity of the highly collaborative and varied TA process. However, the emergence of more advanced generative AI agents opens up broader opportunities.

The Time is Now!

'Do more with less' has become the mantra for modern recruiting. Since 2022, teams have shrunk by 12%, even as application volumes have nearly tripled, putting unprecedented pressure on talent functions⁶. And in a world where customers are candidates are hiring managers, there's no room to sacrifice on experience. To keep up and stay competitive, AI in recruiting is no longer optional, it's essential.

What to Expect Next From Winston

Winston Chat, Companion, Match, and Screen are hot off the press, but SmartRecruiters isn't slowing down. In the second half of 2025, look for exciting updates in video interviewing and conversational analytics, bringing greater efficiency, consistency, and insight. These innovations are designed to empower your team with more expertise, better decisions, and time back to focus on strategy and connecting with talent.

6. [2025 Recruiting Benchmarks Report](#)

Appendix



AI Technology Glossary

Artificial Intelligence is a rapidly evolving and deeply technical field. As such, it is rife with jargon that often extends beyond the scope of many recruiters' daily lexicon. To better understand the core concepts behind AI technology, here is a list of definitions for common terms used in this whitepaper.

AI

Artificial Intelligence (AI) refers to technology that simulates human intelligence, such as the ability to process text-based conversations or speech. An AI agent is software that acts autonomously, taking input from its environment and executing specific actions.

Agent (Agentic)

An Agent (or an Agentic Experience) is a self-directed software program able to perform tasks and take actions with minimal or no human intervention.

Algorithm

Algorithms are designed processes or rule sets used by computers that solve problems. In AI, algorithms analyze data to create and train an AI model. The model makes decisions that undergo multiple rounds of audits and iterations to improve accuracy. Many AIs used today are so-called Narrow or Specialized AIs equipped to carry out tasks within a specific domain (e.g., recruiting or image recognition).

Anonymization

Anonymization is the process of removing all instances of Personally Identifiable Information (PII) to ensure there is no bias in a model's prediction. At SmartRecruiters, we go even further to remove bias by also sanitizing all training data sets from potential sources of hidden human bias, such as university names and employer names.

Deep Learning

Deep Learning is a type of machine learning loosely inspired by the structure and function of the brain. It relies on a concept called Artificial Neural Networks to process huge volumes of data through multiple-layered algorithms. As the data is run through each layer of the network, it often requires less data preprocessing by humans and typically yields more accurate results than traditional machine-learning methods. Deep learning is commonly misunderstood as implying a "deeper" understanding of data.

Generative AI (GenAI)

Generative AI is a type of artificial intelligence technology that can produce various types of content, including text, imagery, audio, and synthetic data, by responding to users' prompts. Generative AI tools that process written and spoken language are based on Large Language Models (see below).

Large Language Model (LLM)

LLMs are a type of AI that can understand and process large amounts of text data. LLMs are built on machine learning, specifically, a type of neural network called a transformer model. Transformer models can learn context, which is important for human language, and use a mathematical technique called self-attention to detect subtle ways that elements in a sequence relate to each other.

LLMs are pre-trained on vast amounts of data and can perform a variety of natural language processing (NLP) tasks (see below), including translation, speech recognition, automatic summary generation, responding to unpredictable queries, and analyzing large data sets of language.

Machine Learning

Machine Learning is a field of computer science that focuses on giving machines, as computing pioneer Arthur Samuel described it in 1959, "the ability to learn without being explicitly programmed." It is a specific type of AI that characterizes how machines "learn" from existing data patterns to make inferences or new predictions. Data scientists use algorithms to build models that process and extract insights from a vast pool of data, which are then fed back into the machine to continuously improve the model.

Natural Language Processing

Natural Language Processing (NLP) is a machine's ability to understand and interpret human language, the way it is written or spoken. The objective of NLP is to make computers as intelligent as human beings at understanding language. NLP seeks to fill the gap between how humans communicate (i.e, through natural language) and what computers understand (i.e, machine language).

Precision vs. Recall

Precision and Recall are two common metrics for evaluating predictive AI/ML models such as SmartAssistant.

- Precision is a metric that measures the accuracy of positive predictions. It is calculated as the ratio of true positive predictions to the total predicted positives.
- Recall is a metric that measures the model's ability to correctly identify all actual positive instances. It is calculated as the ratio of true positive predictions to the total actual positives.

We evaluate the success of our models based on the combination of these metrics.

Supervised Learning

Supervised learning is a type of machine learning where the AI/ML model is trained on labeled data from a training dataset. The opposite of this is unsupervised learning. At SmartRecruiters, all Deep Learning models (e.g, for SmartAssistant) are retrained using Supervised Learning. This allows our Data Science team to ensure that the act of retraining models does not lead to any unforeseen consequences, such as the introduction of bias into model results.

AI Overview

Point Solutions

Point solutions at SmartRecruiters consist of legacy products that will soon be phased out of our offering. SmartAssistant will be replaced by Winston Match, and SmartPal will be replaced by Winston Chat – these new products allow our customers to leverage the latest advancements in AI technology.

Product	AI/ML technique	Customer Access
SmartAssistant Generates AI-powered Match Scores and Recommendations for candidate profiles based on each advertised job	- Natural Language Processing (NLP)* models - Fine-tuned NER, transformer and embedding models - Transformer and embedding models - Proprietary Deep Learning models (natively built) - Classic Regression techniques (natively built) - LLMs - Claude Sonnet 3.5 by Anthropic for annotation - Mistral 7B for skill mapping evaluation	Add-on product available to users of SmartRecruit
SmartPal Chatbot personalizes the candidate experience by automating candidate conversations	- Natural Language Processing (NLP) models: - Word embedding (spacy) - Logistic Regression (intent classification) - Conditional Random Fields (entity extraction)	Add-on product available to users of SmartRecruit

AI Products at SmartRecruiters

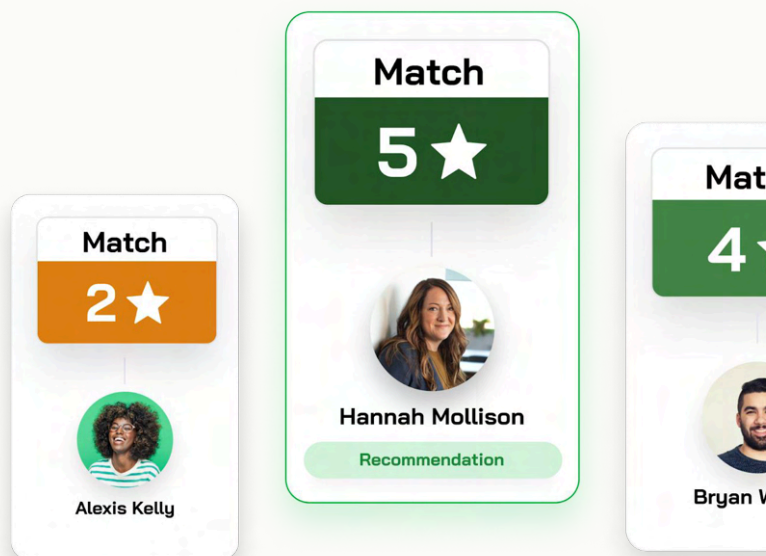
Point Solutions

SmartAssistant

SmartAssistant is an AI-powered candidate discovery tool that takes the pain out of filtering applications. Its powerful AI is based on deep learning algorithms trained on historical data points from the CV screening process. This skills-based approach uses an NLP model for skills extraction, normalizes the skills to an Occupation-Skills Taxonomy by ESCO, and performs Deep Learning and regression techniques to arrive at a Match Score.

SmartAssistant scores incoming applicants and provides candidate recommendations from past applications in the ATS and CRM. Applicant scores help recruiters prioritize their screening process, while Recommendations help recruiters build robust talent pipelines efficiently and get the best ROI for advertising spend. In both cases, the skills-based approach also can discover otherwise hidden talent.

Companies can purchase SmartAssistant as an add-on to SmartRecruit. With the license, users can access SmartAssistant's two core products: Match Score and Recommendations. Access to SmartAssistant's features is managed by assigning seats to specific users.



	Emily Marcos Cafeteria manager 	Match 5★
	Susan A. Browne Accountant 	Match 1★
	Li Wang Waiter 	Match 3★

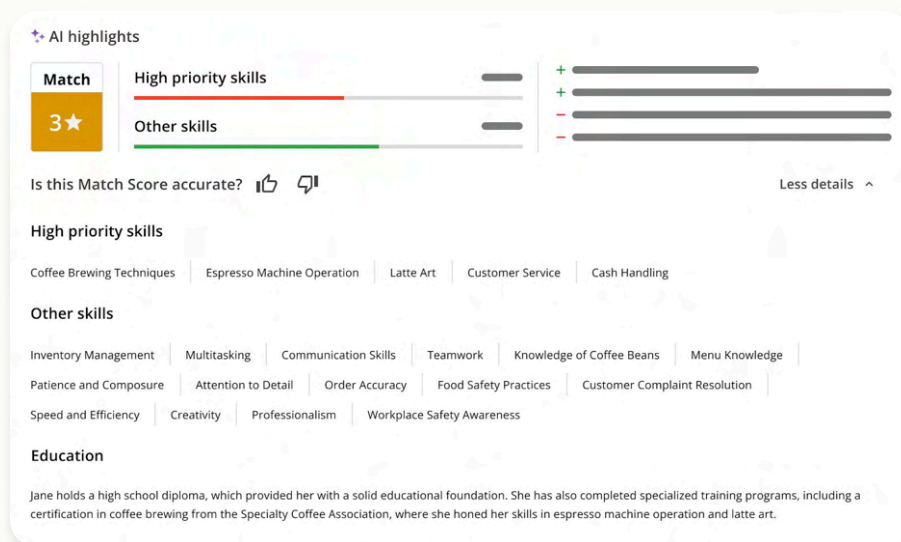
Data Use in SmartAssistant

Every piece of candidate data used to train or test SmartAssistant models is anonymized. This means that no personal data is used to train the algorithm. Data is aggregated across applications and clients in the model used to calculate the Match Score to ensure that nothing can be directly attributed back to any one client or candidate.

Match Score

Match Score saves recruiters time by pre-screening and scoring each candidate on a 5-star scale based on their skill overlap with the job ad. It helps recruiters better prioritize the list of applicants based on whose profile is the best match. It does not make any hiring decisions; candidates are moved forward or rejected by recruiters.

The Match Score is a confidence interval of a candidate's fit for a specific job based on the skills overlap with the Job Ad. Match Score is a sliding scale, with scores of 4 and 5 stars considered high confidence in a good match, and 1-2 stars is considered low confidence in a good match.



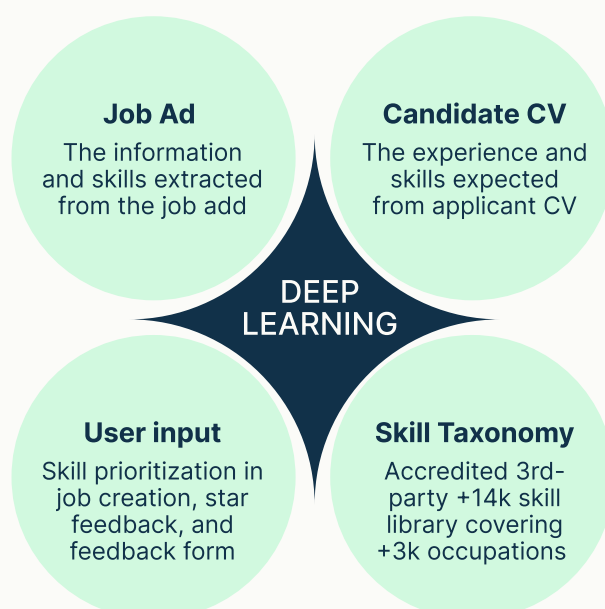
The Match Score summary offers a high-level view of the Match Score by explaining how the candidate ranks across high-priority skills and other skills found in the Job Ad. The summary includes the candidate's star rating, the portion of high-priority and other skills found in the candidate's resume, as well as a candidate skill summary and an expandable details section with further information on skills.

How the Match Score is Calculated

SmartAssistant extracts key information from the following sections of the Job Ad: the job title, job description, and qualifications sections. This text is processed to infer and extract the skills required for the job. A similar process is applied to the candidate's CV and application that extracts relevant skills from employment history, education, and the resume's text content.

The skills are normalized using an occupation-skills taxonomy. This service uses the European Commission's ESCO classification, which covers nearly 14,000 skills and over 3,000 occupations. The Match Score is then calculated by comparing the skill sets from the Job Ad and candidate application (e.g., candidate CV) using a Deep Learning AI algorithm trained on historical SmartAssistant customer data to predict the likelihood of a candidate advancing in the hiring process past the CV screening phase. The model does not factor in the likelihood of being hired because interviews are often subject to human bias, and we do not have visibility to ensure this would not impact the model results.

The score is calculated when the candidate's application is added to SmartRecruiters. As the job details are a critical input to the calculation, each candidate is assigned an independent Match Score for each job funnel they are a part of. Match Scores are recalculated if there are any changes to the critical sections of the Job Ad. Candidates do not see their Match Score; this information is generally only shared with applicants as required by data transparency requirements.



Only data from the Job Title, Job Description, and Qualifications fields on a job are considered when calculating the Match Score. The Company Description field is not processed because it is usually more general and not specific to the job. To deliver a Match Score, the system needs enough information to extract a healthy amount of skills and experiences from the sections listed above.

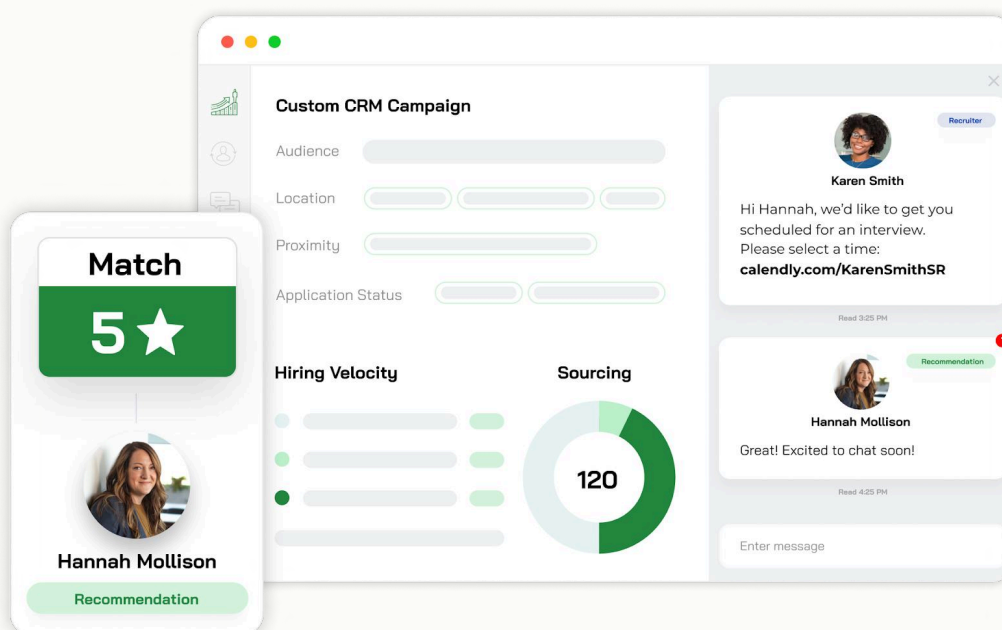
Case Study: SmartAssistant Boosts Recruiter Productivity for CPG Giant

For a global consumer packaged goods manufacturer, operational efficiency and the ability to meet deadlines are crucial to business success. As such, the hiring team sought to improve productivity while continuing to offer a delightful candidate experience. Before SmartAssistant, the hiring team spent an average of 48 days screening and vetting candidates, with multiple bottlenecks in the hiring process negatively affecting the candidate experience for applicants stuck in the pipeline.

After deploying SmartAssistant, the company cut its time spent screening applicants by nearly 35 days (from 48 days to 13 days). This translates to 73% time savings on repetitive processes—time that can now be spent on engaging and building meaningful relationships with candidates.

Recommendations

The Recommendations feature uses SmartAssistant's powerful matching algorithms to scan your previous applicant database and talent communities (if using SmartCRM) to suggest potential candidates for your new job opening. For example, when recruiters get a new job requisition, they can search for recommended candidates who may be worth re-engaging about the new open position, helping recruiters quickly fill their talent pipeline for a new job.



How Recommendations Work

When a job is posted or edited, SmartAssistant looks into the company's existing talent pools and past applicants to identify who might be a qualified candidate for a given role. The purpose of Recommendations is to augment a candidate pool beyond just the direct applicants for the current role. Recommendations allow recruiters to more quickly and easily fill the top of their pipeline with highly relevant previous candidates and maximize ROI from previous advertising and sourcing activities.

Customers can view more details about a recommended candidate by going to the candidate's profile. The AI-powered Candidate Summary includes the candidate's star rating, the portion of high-priority and other skills found in the candidate's resume, a candidate skill summary, and an expandable details section with further information on skills.

Case Study: SmartCRM + SmartAssistant Help Frasers Group Speed Up Hiring and Save Money

Frasers Group, a U.K.-based retailer, used SmartAssistant to shortlist and hire more than 20,000 candidates within its first year of using SmartRecruiters, reducing hiring times for seasonal hires from 40 days to less than 10 days.

By storing eligible seasonal employees and collecting candidates throughout the year in SmartCRM, in the second year, the Recommendations feature helped Frasers Group source 40% of its seasonal hires from the CRM, substantially reducing cost per hire.

“ SmartAssistant gives us a systematic, automated method of sifting and selecting to create an over-indexed shortlist of pre-qualified candidates that our stores can use to get people booked in for interviews. ”

Adam Reynolds

Head of Talent, Frasers Group

Languages

SmartAssistant supports job ads and CVs in the following languages: English, Chinese, Croatian, Danish, Dutch, Finnish, French, German, Hungarian, Italian, Norwegian, Polish, Portuguese, Slovak, Spanish, and Swedish.

SmartPal

Candidates often have many questions when they first learn about a company. While employer brand sites may contain lists of frequently asked questions (FAQs), candidates may not take the time to look for them. Companies that can benefit from career chatbots include those that engage in high-volume hiring and large enterprises looking to engage talent at scale.

The SmartPal chatbot offers candidates an easier way to engage with a company's content, discover jobs, apply, and schedule interviews. By delivering content in the company's voice and tone, the chatbot can provide a branded experience that familiarizes the candidate with the company before human interaction occurs.

How SmartPal works

SmartPal leverages a proprietary Natural Language Processing (NLP) AI engine to deliver a responsive candidate experience, faster applicant conversions, and greater efficiency when handling interested candidates at scale. The answers given by the chatbot are set up by the customer and the models do not access external data. SmartPal requests user consent before engaging in a chat.

SmartPal is available in the following modules:

- Discover: Answers frequently asked questions and guide candidates toward job discovery
- Text to apply: Engages talent with QR or SMS short codes and guide them through the application and screening process
- Schedule: Schedules interviews at scale

Languages

SmartPal is available in English, German (Formal + Informal), French (Formal + Informal), Spanish (Formal + Informal), Italian, Portuguese, Polish, Chinese (Formal + Informal), Dutch (Formal + Informal), Norwegian (Formal + Informal), Swedish (Formal + Informal), Turkish (Formal + Informal), Danish

The image displays three screenshots of the SmartPal chatbot interface. Each screenshot shows a candidate's question in a blue bubble and the chatbot's response in a light gray bubble. The chatbot's responses are labeled 'Chatbot' in small text above the response bubble.

Screenshot 1: The question is 'Why should I work with you?'. The response is: 'We value our employees and our priority is their well-being - physically, mentally & professionally 😊 We have a wide range of benefits such as a retirement plan, life insurance, work equipment and paid training, to name a few. Please ask the recruiter during your interview process.'

Screenshot 2: The question is 'What is the application process?'. The response is: 'The recruiting process differs depending on the position you are applying for. A member of our recruiter team will be happy to guide you through your process.'

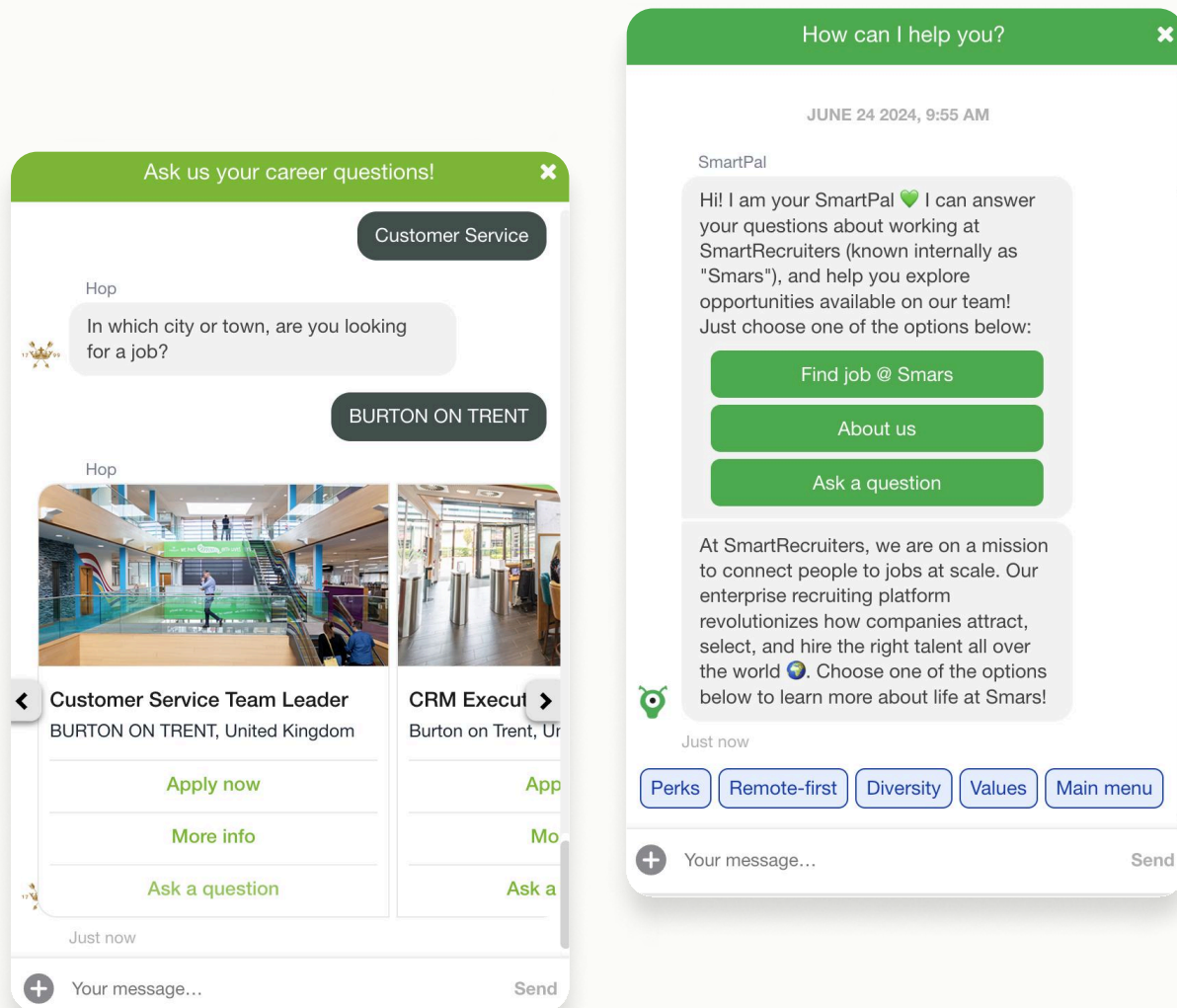
Screenshot 3: The question is 'In which language should I send my CV?'. The response is: 'Please always submit your application in English.'

Availability

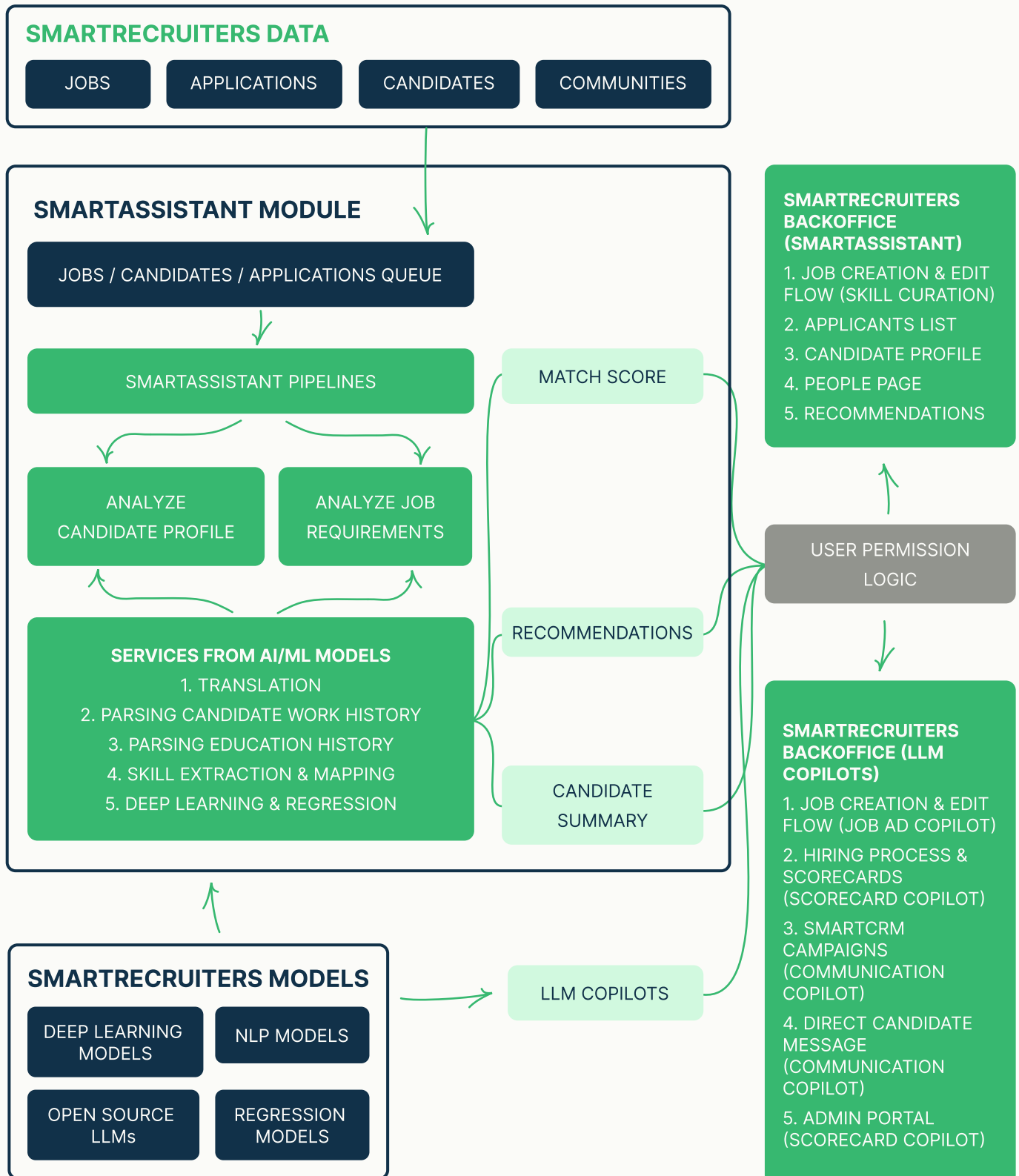
Candidate chats can occur on the following platforms: website messenger, WhatsApp, SMS, Facebook Messenger, and WeChat. [Image of different career site chatbots]

SmartRecruiters Career chatbot

Greene King career chatbot



SmartRecruiters AI environment: Point Solutions



SmartRecruiters

An SAP company

See SmartRecruiters in action [↗](#)

About SmartRecruiters

SmartRecruiters is the Recruiting AI Company that transforms hiring for the world's leading enterprises. Built for global scale, SmartRecruiters, an SAP company, delivers an AI-powered hiring platform that automates and optimizes the entire talent acquisition process, ensuring faster and smarter hiring decisions. More than 4,000 companies, including Amazon, Visa, and McDonald's, rely on SmartRecruiters to build winning teams. In 2025, SmartRecruiters joined SAP, the global leader in enterprise applications. Together, SmartRecruiters and SAP are accelerating the reinvention of hiring by combining cutting-edge AI innovation with the scale, reach, and resources of SAP's ecosystem.

For more information, visit www.smartrecruiters.com/winston/

 [smartrecruiters.com](https://www.smartrecruiters.com)

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