

HireFlow: Resume Screening in Applicant Tracking System Using JobBERT and XGBoost

User Guide: HireFlow ATS Powered by JobBERT and
XGBoost

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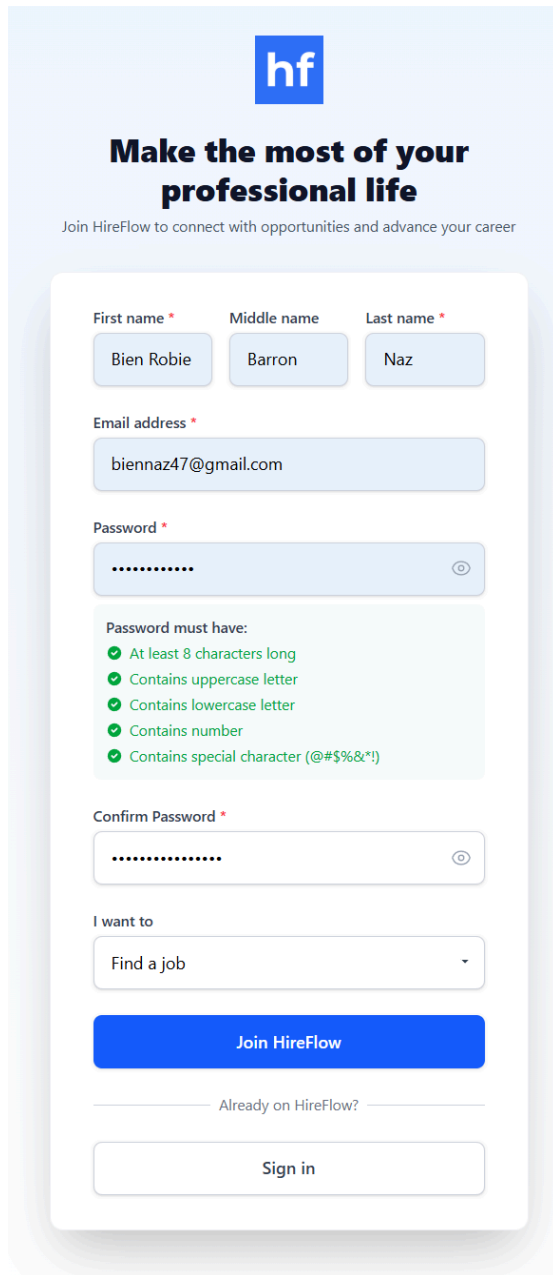
HireFlow is a web-based applicant tracking system designed to streamline recruitment for employers and job seekers. It features multiple integrated modules: the Authentication Module handles secure login, registration, and role-based access; the Job Management Module allows employers to manage job postings with search and filter tools; and the Applicant Management Module enables tracking and updating applicant statuses with detailed candidate profiles. The Dashboard Module offers real-time analytics and visual insights, while the Application Process Module lets job seekers browse jobs, apply, upload resumes, and track their application status. The Resume Analysis Module leverages JobBERT to extract and match resume details against job descriptions, providing match scores for more accurate screening. The Notification Module delivers real-time updates, and the Information Pages Module provides platform guidance, FAQs, and company info.

Hardware and Software Specifications

HireFlow was built using Python 3.11 along with libraries such as spaCy, NLTK, Transformers, PyTorch, and Scikit-learn for NLP and machine learning. Flask and Supabase powered the backend, while React and Figma were used for frontend development. Tools like VSCode, GitHub, Lucidchart, and Google Colab (with GPU/TPU support) supported collaboration and model training. The system runs on a Windows 11 machine with a minimum of an AMD Ryzen 5, 16 GB RAM, and RTX 2050 GPU, while the recommended setup includes a Ryzen 7, 32 GB RAM, and RTX 3050 GPU for optimal performance.

1 Account Creation

Navigate the HireFlow page and press the sign up button to register for an account



The image shows a mobile app interface for creating a HireFlow account. At the top is the 'hf' logo. Below it is the heading 'Make the most of your professional life' and a subtext 'Join HireFlow to connect with opportunities and advance your career'. The form contains several input fields: three for first, middle, and last names (filled with 'Bien Robie', 'Barron', and 'Naz' respectively), an email address field (filled with 'biennaz47@gmail.com'), a password field (masked with dots), and a confirm password field (also masked). Below the password field is a list of password requirements, all of which are checked with green icons. At the bottom of the form is a dropdown menu labeled 'I want to' with 'Find a job' selected. A blue 'Join HireFlow' button is positioned below the dropdown. At the very bottom, there is a link 'Already on HireFlow?' and a 'Sign in' button.

hf

Make the most of your professional life

Join HireFlow to connect with opportunities and advance your career

First name * Middle name Last name *

Bien Robie Barron Naz

Email address *

biennaz47@gmail.com

Password *

.....

Password must have:

- ✓ At least 8 characters long
- ✓ Contains uppercase letter
- ✓ Contains lowercase letter
- ✓ Contains number
- ✓ Contains special character (@#\$\$%&*!)

Confirm Password *

.....

I want to

Find a job

Join HireFlow

Already on HireFlow?

Sign in

2 Select Role

Use the dropdown menu labeled "**I want to**" to select your role on the platform:

- Select **Find a job** if you are a job seeker looking for opportunities.
- Select **Hire talent** if you are an employer or HR representative looking to post jobs and recruit candidates.

The image shows a sign-in form for HireFlow. It includes a 'Password' field with a strength indicator showing five green checkmarks for requirements: at least 8 characters, uppercase letter, lowercase letter, number, and special character. Below it is a 'Confirm Password' field. The 'I want to' dropdown menu is open, showing 'Find a job' and 'Hire talent' options. A 'Sign in' button is at the bottom.

Password *

.....

Password must have:

- ✓ At least 8 characters long
- ✓ Contains uppercase letter
- ✓ Contains lowercase letter
- ✓ Contains number
- ✓ Contains special character (@#\$\$%&*!)

Confirm Password *

.....

I want to

Find a job ▼

Find a job

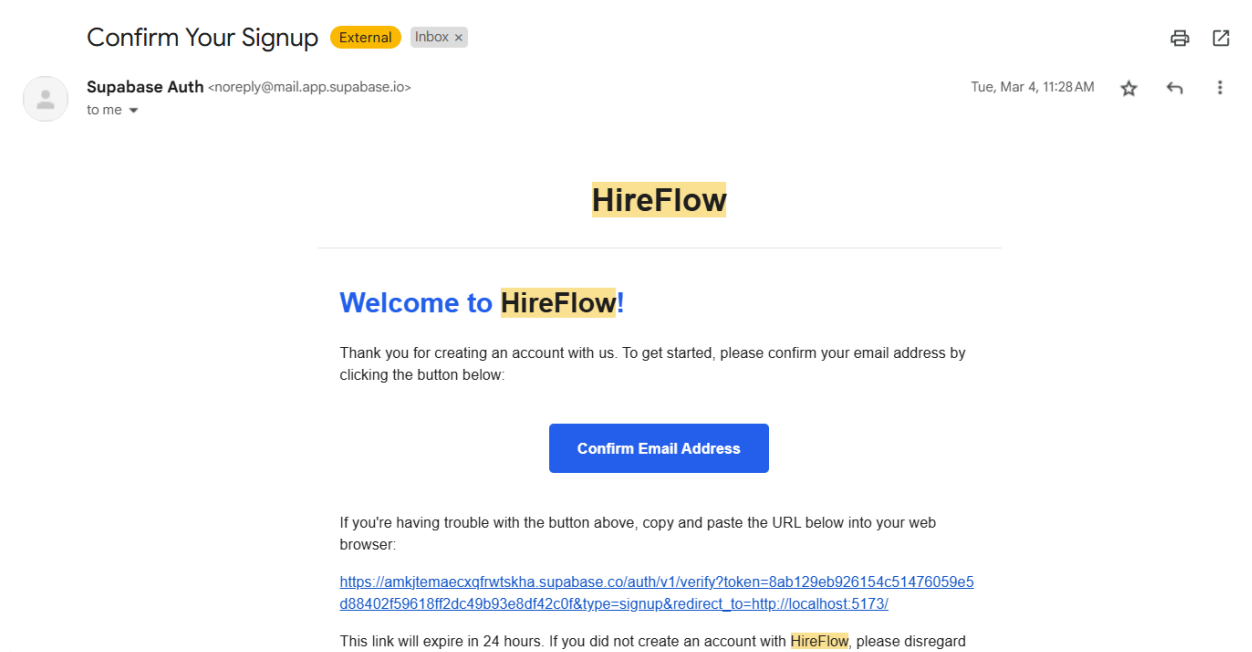
Hire talent

Already on HireFlow?

Sign in

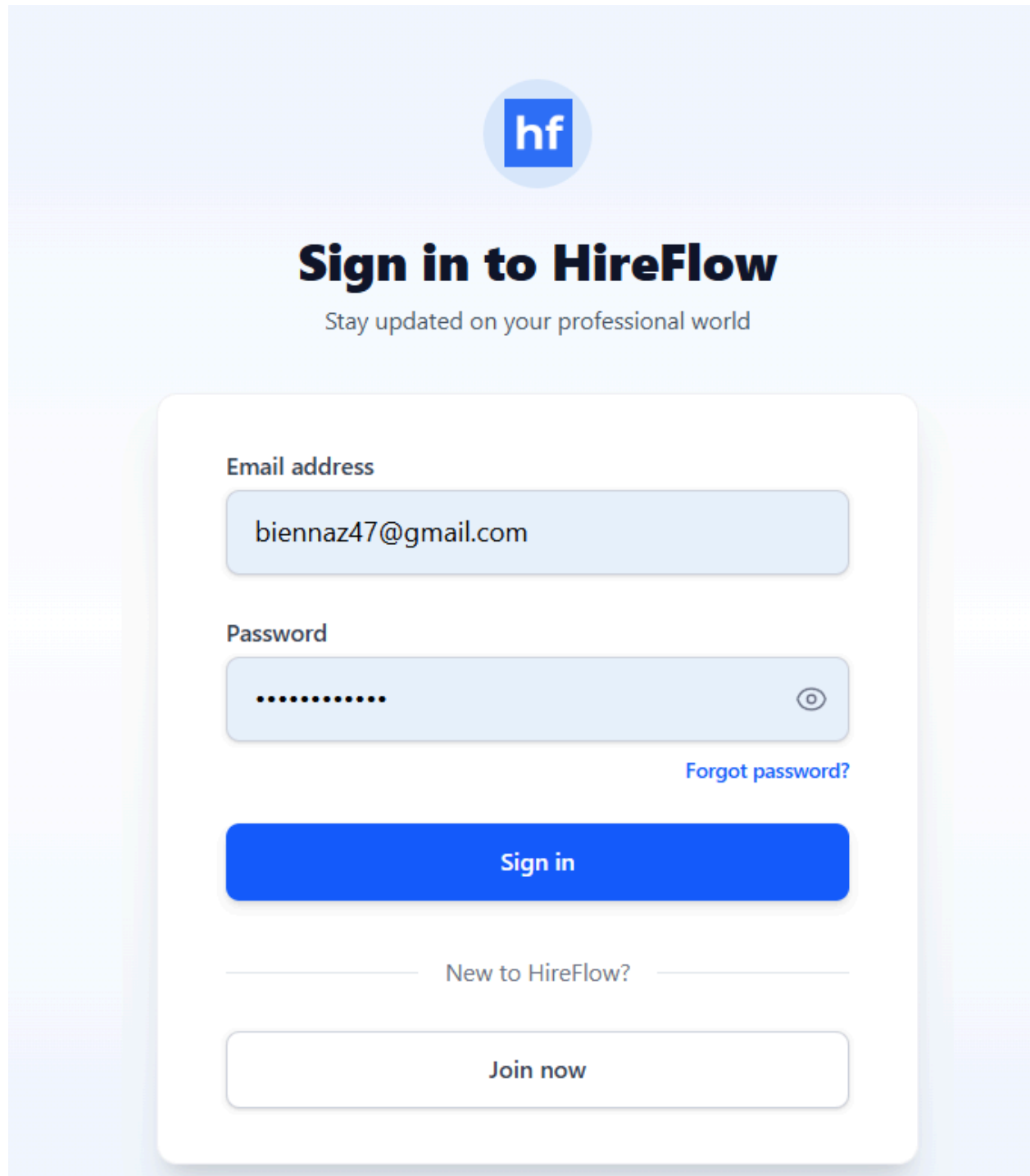
3 Confirm Sign up

After clicking sign in, check your email to activate your account.



4 Logging In

Press the login button on the home page or the sign in button on the registration page to sign in on the application. Depending on your selected role, you would either see job postings or the employer dashboard.



The image shows a web page for logging into HireFlow. At the top center is a circular logo with the letters 'hf' in white on a blue background. Below the logo, the text 'Sign in to HireFlow' is displayed in a large, bold, black font. Underneath this, in a smaller, regular black font, is the tagline 'Stay updated on your professional world'. The main content area is a white rounded rectangle with a subtle drop shadow. Inside this rectangle, the label 'Email address' is positioned above a light blue input field containing the text 'biennaz47@gmail.com'. Below the email field, the label 'Password' is positioned above another light blue input field. The password field contains ten dots and a small circular icon with an eye, indicating a password toggle. To the right of the password field, the text 'Forgot password?' is displayed in a blue, clickable font. Below the password field is a prominent blue button with the text 'Sign in' in white. At the bottom of the white rounded rectangle, there is a horizontal line. Below this line, the text 'New to HireFlow?' is centered. Underneath this text is a white button with a thin blue border and the text 'Join now' in black.

hf

Sign in to HireFlow

Stay updated on your professional world

Email address

Password

[Forgot password?](#)

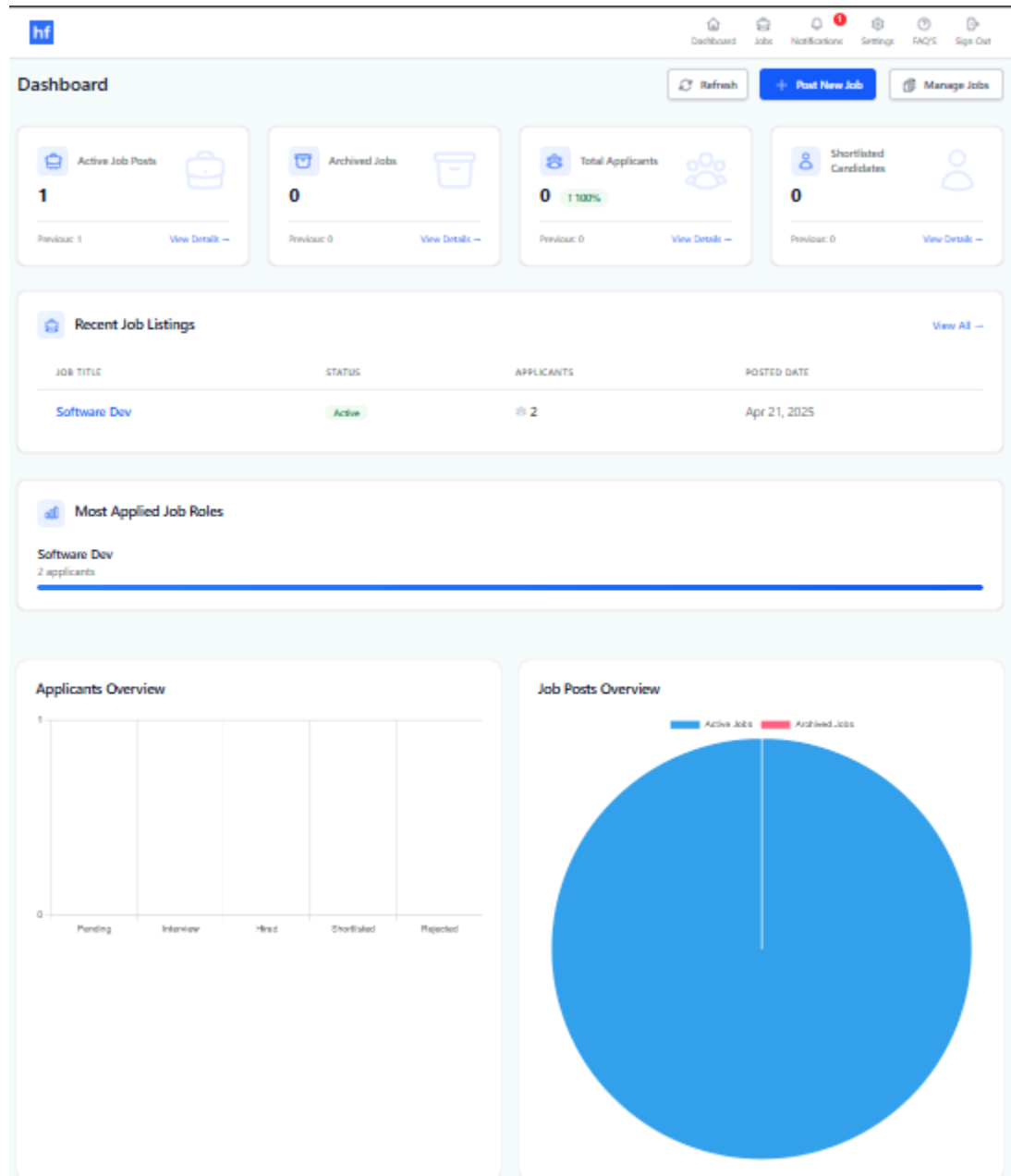
Sign in

New to HireFlow?

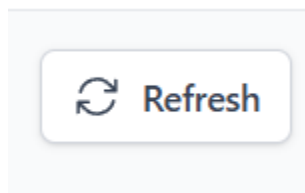
Join now

5 HR Dashboard

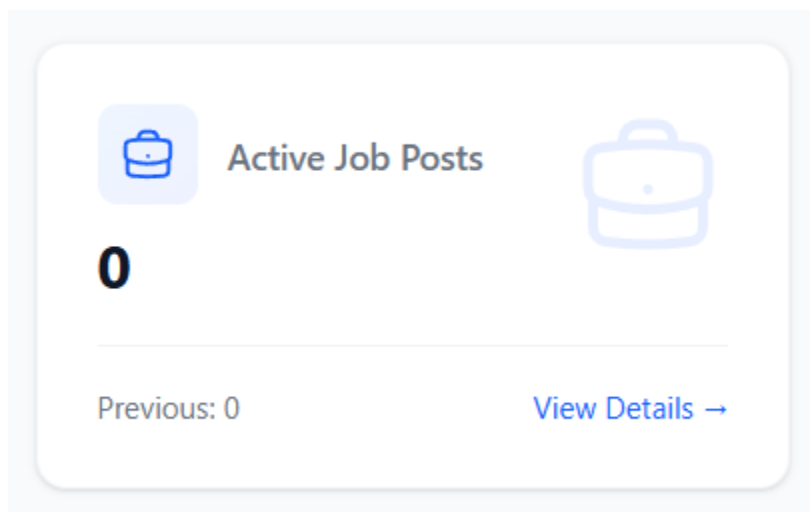
After clicking the “Sign In” button, you will be directed to the HR Dashboard, where you can view updates and activity related to the job posts you have created. This dashboard provides a centralized overview of your recruitment efforts.



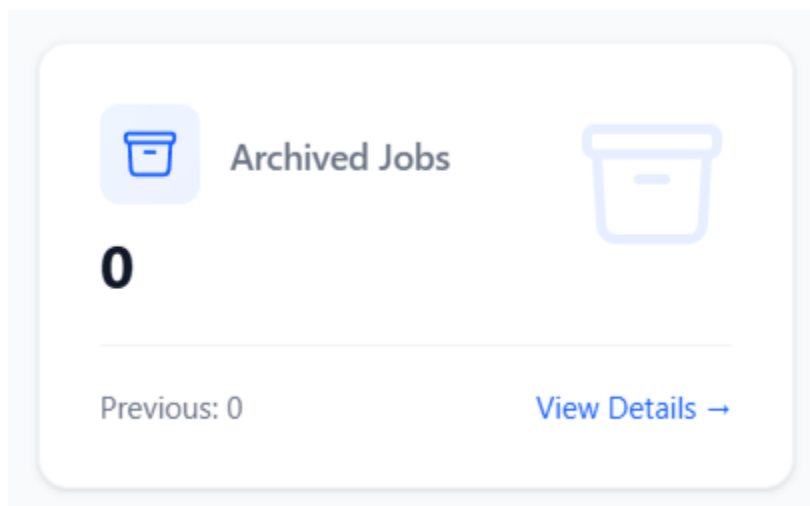
Click the “Refresh” button to manually update the page and view the latest information. The page also auto-updates every minute to ensure you’re always seeing the most current data.



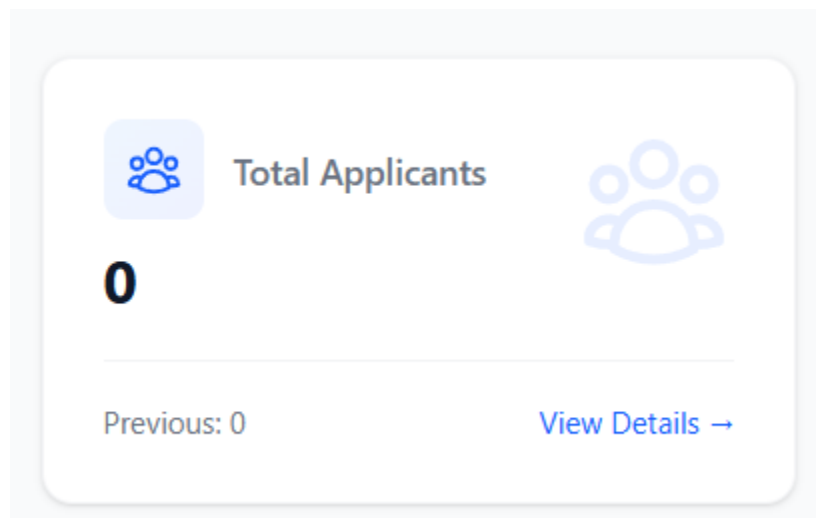
This section displays all currently active job posts that are live and visible to jobseekers. It provides a quick overview of the positions you are actively hiring for.



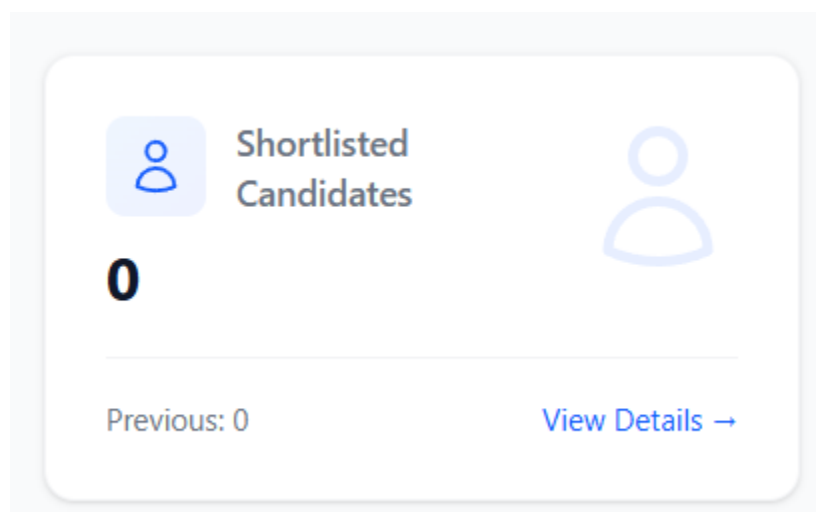
This section allows you to view archived job posts that have been removed from the active listings. Archived jobs are no longer visible to jobseekers but can be accessed for reference or future use.



This section shows the total number of applicants for each of the job posts you've created. It provides a quick overview of the applicant pool for each listing.



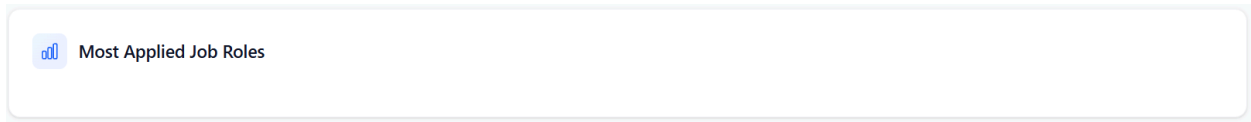
This section displays the shortlisted applicants from the users you have selected. It allows you to easily manage and review the candidates you're considering for further stages of the hiring process.



This section allows you to view all the job postings you've created, along with the total number of applicants for each post, status and posted date.

Recent Job Listings				View All →
JOB TITLE	STATUS	APPLICANTS	POSTED DATE	

This section allows you to view all the job postings you’ve created, along with the total number of applicants for each post. It provides a clear overview of your recruitment efforts and the level of interest in each position.



This section provides a visual overview of the applicants and job posts through bar and pie graphs. The bar graph displays data such as the number of applicants per job post, while the pie graph offers insights into the distribution of active jobs and archived jobs, helping you analyze trends easily.



6 Create Job Post

Click the blue “Post New Job” button to create a new job listing for jobseekers. This will allow you to enter the details of the job post, including the role, qualifications, and other relevant information.

hf

[Dashboard](#)[Jobs](#)[Notifications](#)[Settings](#)[FAQ'S](#)[Sign Out](#)

Dashboard

Refresh

Post New Job

Manage Jobs

Create Job Post

Basic Information

Job Title

Company Name

Location

Employment Type

Salary Range

Applicants Needed

Company Details

Company Logo

Job Description

About the Company

Key Responsibilities

Qualifications

Required Skills

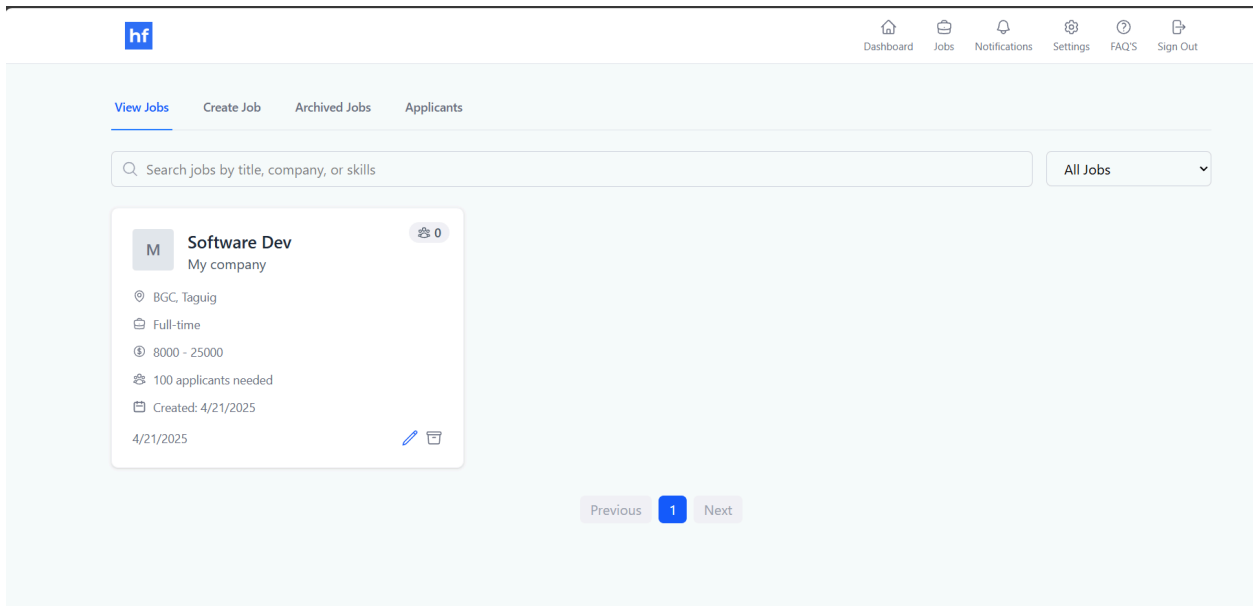
Create Job Post


7 Jobs

Click on the “Jobs” on the top right corner of the dashboard.



This section displays all the jobs you have created for jobseekers. It provides an overview of the active job postings you’ve made, allowing you to manage and track their progress.



Click on the  next to your job post to modify its details according to your preferences. This allows you to update the job description, qualifications, or any other information as needed.

Edit Job Post

Basic Information


Job Title

Software Dev


Company Name

My company


Location

 BGC, Taguig

Employment Type

 Full-time

Salary Range

 8000 - 25000

Applicants Needed

 100

Company Details

Company Logo

Choose File

No file chosen


Accepted file types: JPEG & PNG

Maximum file size: 5MB

Job Description

We are looking for a Computer Engineer to join our team and support

8 Archive

Click on the  next to your job post to move it to the archived section. This will remove the job post from the active listings while keeping it accessible for future reference.

Archive Job Posting

Are you sure you want to archive this job posting? It will be moved to the archived jobs section.

Cancel

Archive


After archiving a job post it will show up to the “Archived Jobs” section where you can see the jobs that have been archived.


[View Jobs](#) [Create Job](#) [Archived Jobs](#) [Applicants](#)


Archived Job Postings


M


Software Dev
My company


 BGC, Taguig

 Full-time

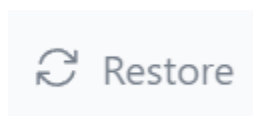
 8000 - 25000

 100 applicants needed

 Archived: 4/21/2025

 Restore

You can still restore the archived job post just by clicking on the “Restore” button on the bottom right of the job post.



9 Applicants

Click on the “Applicants” button to review the applications submitted by candidates. Here, you can view their resumes, evaluate their responses to screening questions, and decide whether to accept, reject, or shortlist them for an interview. This section helps you manage the entire applicant review process efficiently.

The screenshot displays the 'Applicants Review' section of a web application. At the top, there are navigation links: 'View Jobs', 'Create Job', 'Archived Jobs', and 'Applicants' (which is highlighted). Below the navigation, the 'Applicants Review' title is shown. On the left, there is a search bar labeled 'Search applicants...' and a 'Filter Applicants' section. The filter section shows two applicants, both with the name 'dfsdf dfgdfg', the role 'Software Dev • My company', and the date 'April 21, 2025'. Both applicants are marked as 'Pending'. On the right, the detailed view of an applicant is shown. It includes the name 'dfsdf dfgdfg', the role 'Software Dev at My company', and the date 'Applied on April 21, 2025'. The status is 'Pending', and there is an 'Add to Shortlist' button. Below this, there are three buttons: 'Accept' (with a checkmark icon), 'Interview' (with a calendar icon), and 'Reject' (with an 'X' icon). Further down, there are tabs for 'Applicant Details', 'Evaluate Resume', and 'Screening Questions'. The 'Applicant Details' tab is active, showing sections for 'Work Experience' and 'Education'. The 'Work Experience' section indicates 'No work experience provided' and 'Previous Employment at My company: None'. The 'Education' section shows 'Master of Arts in cs' from '2019 — 2025'.

Click on the appropriate buttons to update the applicant's current "Pending" status. You can mark them as "Accepted" to move forward with their application, "Shortlisted for Interview" if they are selected for an interview, or "Rejected" if they are not moving forward in the process.

This block shows three buttons used for updating an applicant's status: 'Accept' (with a green checkmark icon), 'Interview' (with a blue calendar icon), and 'Reject' (with a red 'X' icon).

Click on the “View Resume” button to access and review the applicant's uploaded resume. This allows you to evaluate their qualifications and experience in detail for the position.

[View Resume](#)

Click on the “Evaluate Resume” button to use AI that will analyze the resume and provide a more detailed evaluation. This feature helps you assess the applicant's qualifications, skills, and experience more efficiently.


Applicant Details


Evaluate Resume

Screening Questions

Resume-Job Match Evaluator


Analyze how well this candidate's resume matches the job requirements


 Evaluating candidate:
dfsdf dfgdfg for position: Software Dev

 Job Description

Job Title: Software Dev
Company: My company
Location: BGC, Taguig
Employment Type: Full-time
Salary Range: 8000 - 25000

About the Company:
We are looking for a Computer

 Resume



Resume loaded: 1745214818914-Ymnwl%20Jan%20Faurillo_Computer%20Science.pdf

You can replace it with another file if needed

Replace File


Click on the “Screening Questions” button to view the applicant's responses to the questions. This helps you assess their suitability for the position based on their answers.


Applicant Details


Evaluate Resume


Screening Questions


Screening Questions


 Are you applying for a VISA?
No

 Do you have a non-compete clause?
No

 Are you a Filipino / dual Filipino citizen?
No

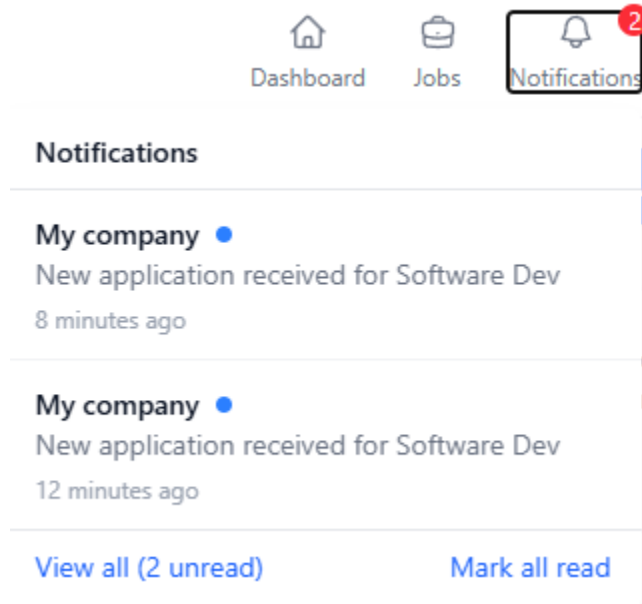
 Have you been directly employed by this company?
Yes

 Do you have relatives working with this company, any of the company subsidiaries, or other companies?
No

 Do you have a bond with your current employer?

10 Notifications

Click on the “Notifications” button to view updates about new applicants for the job posts you’ve created. This will alert you whenever a new applicant has submitted their application.



11 Settings

Click the “Settings” button located at the top right corner of the dashboard to access your Account Settings. Here, you can manage your Profile Settings, update your Email, and change your Password as needed.

Account Settings

Manage your account information and security preferences

Profile Settings

Email

Change Password

Profile Settings

Last updated: 4/21/2025

Edit Profile

First Name

job

Middle Name

bert

Last Name

XGboost

Email

ymnwlfaurillo@yahoo.com

In the “Profile Settings” section, you can customize your username according to your preference and view the email address currently associated with your account. After making any changes, click “Save Changes” to apply and keep your updated username.

Profile Settings

Cancel

First Name

job

Middle Name

bert

Last Name

XGboost

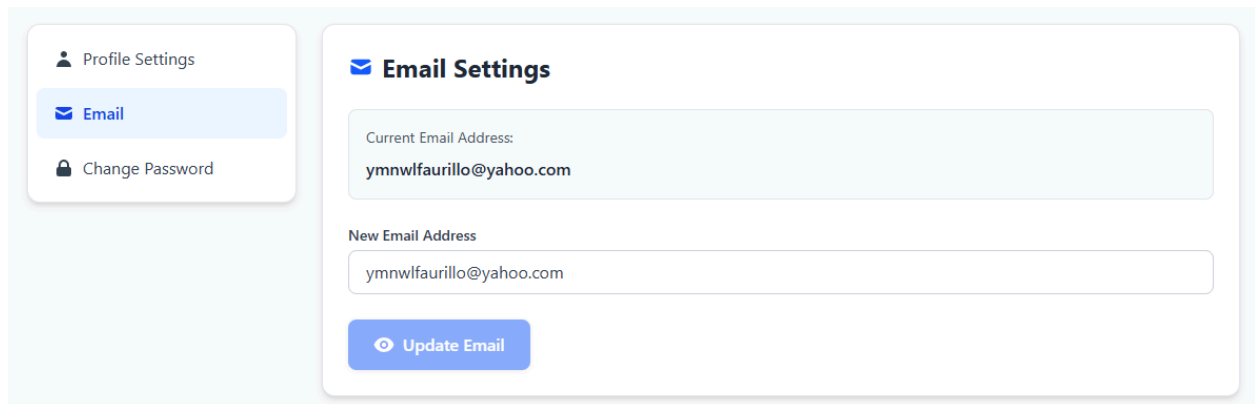
Email

ymnwlfaurillo@yahoo.com

Email cannot be changed here. Use the Email tab to update your email address.

Save Changes

Clicking the “Email” tab will display the current email address associated with your account. You can update it by entering your preferred email address, then clicking the “Update Email” button to save the changes.




The Email Settings interface features a left sidebar with three options: 'Profile Settings' (person icon), 'Email' (envelope icon, highlighted in blue), and 'Change Password' (lock icon). The main content area is titled 'Email Settings' with an envelope icon. It displays the 'Current Email Address' as ymnwlfaurillo@yahoo.com. Below this is a 'New Email Address' input field, also containing ymnwlfaurillo@yahoo.com. At the bottom is a blue 'Update Email' button with an eye icon.

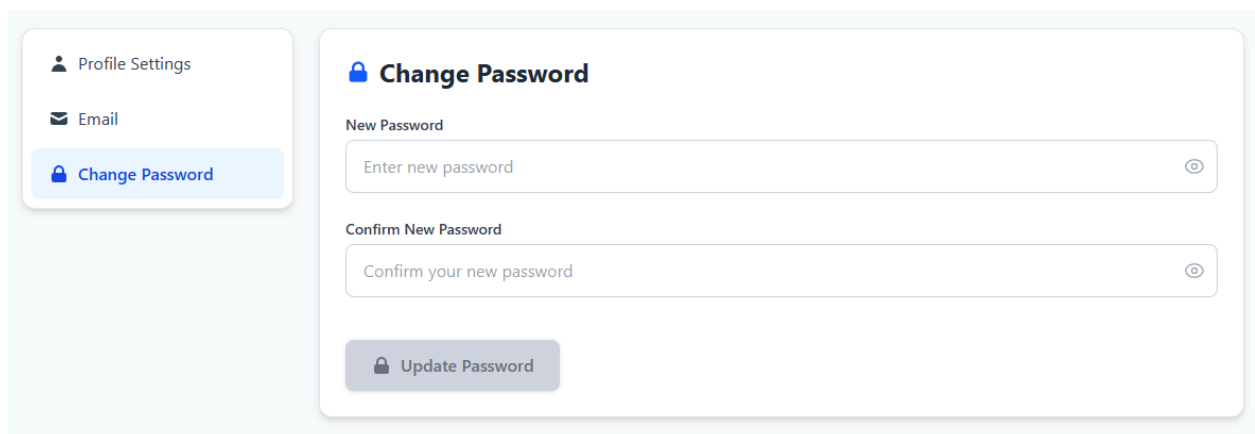
Email Settings

Current Email Address:
ymnwlfaurillo@yahoo.com

New Email Address
ymnwlfaurillo@yahoo.com


 Update Email


Clicking the “Change Password” option will display the password update interface. Here, you can enter your new password and retype it to confirm. Once completed, click the “Update Password” button to successfully change your account password.




The Change Password interface features a left sidebar with three options: 'Profile Settings' (person icon), 'Email' (envelope icon), and 'Change Password' (lock icon, highlighted in blue). The main content area is titled 'Change Password' with a lock icon. It contains two input fields: 'New Password' with the placeholder 'Enter new password' and 'Confirm New Password' with the placeholder 'Confirm your new password'. Both fields have an eye icon on the right. At the bottom is a grey 'Update Password' button with a lock icon.

Change Password

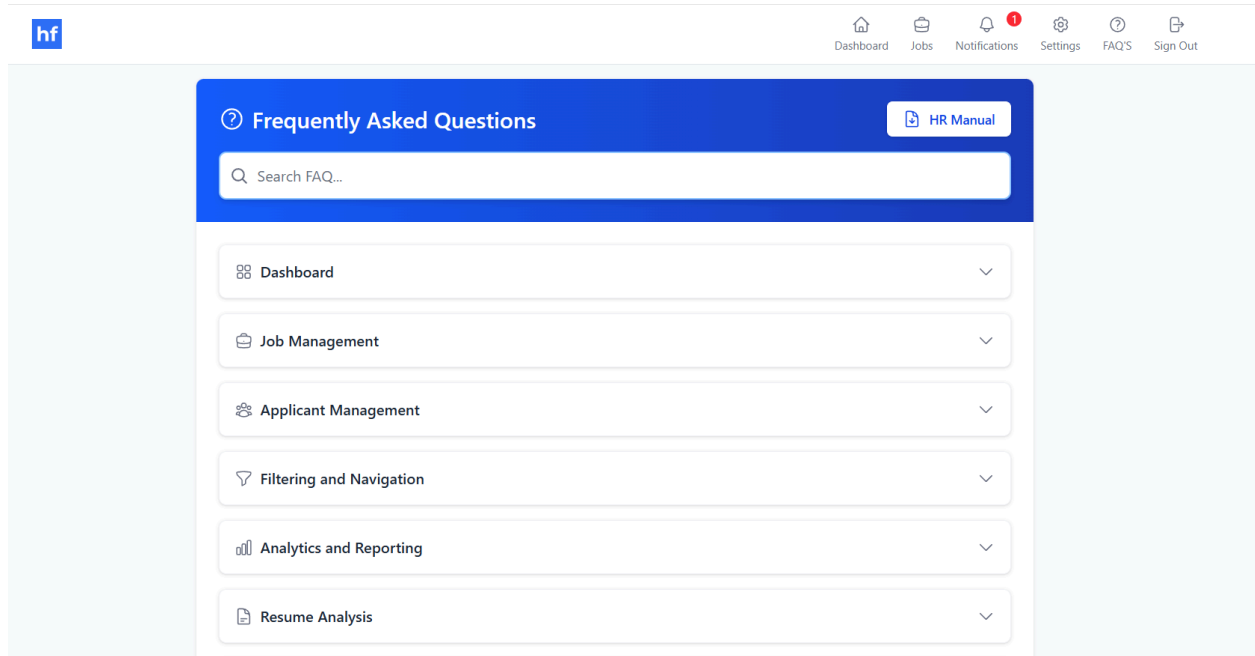
New Password
Enter new password 

Confirm New Password
Confirm your new password 

 Update Password

12 FAQs

Click the “FAQs” button located in the top right corner of the dashboard to access the user manual and a list of frequently asked questions. This section provides helpful guidance on how to navigate and use the website effectively.



You can use the search bar to quickly find answers to your questions. Once you find a relevant topic, click the dropdown button to reveal sub-sections that provide more detailed and specific information.

Frequently Asked Questions

HR Manual

Search FAQ...

Dashboard	
How do I read the dashboard metrics?	▼
How do I use the job statistics cards?	▼
What information is shown in the Recent Job Listings?	▼
How can I see the most popular job roles?	▼
How do I navigate to different sections from the dashboard?	▼

The screenshot shows the top part of the application interface. At the top, there is a light blue header bar with the word "Dashboard" and a grid icon on the left, and a small upward-pointing arrow on the right. Below the header, there is a white box with a thin black border. Inside this box, the question "How do I read the dashboard metrics?" is written in blue text. To the right of the question is a small upward-pointing arrow. Below the question box, the answer is provided in a light blue box with rounded corners. The text explains that the dashboard displays key metrics including active jobs, archived jobs, total applicants, and shortlisted candidates, and that clicking on any metric card will take the user directly to the relevant filtered view.

13 Signout

Click on the “Signout button” on the top right corner of the dashboard to logout from your current account



Sign Out

After clicking the “Sign Out” button, an alert will appear asking you to confirm your action. To proceed with signing out, simply click the “Sign Out” button in the alert to log out of your account.

Confirm Sign Out

Are you sure you want to sign out?

Cancel

Sign Out