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

User Guide: HireFlow ATS Powered by JobBERT and

XGBoost

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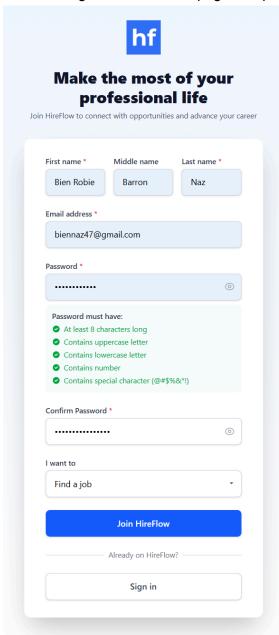
HireFlow is a web-based applicant tracking system designed to streamline recruitment for employers and job seekers. It features multiple integrated modules: the Authentication Module handles secure login, registration, and role-based access; the Job Management Module allows employers to manage job postings 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

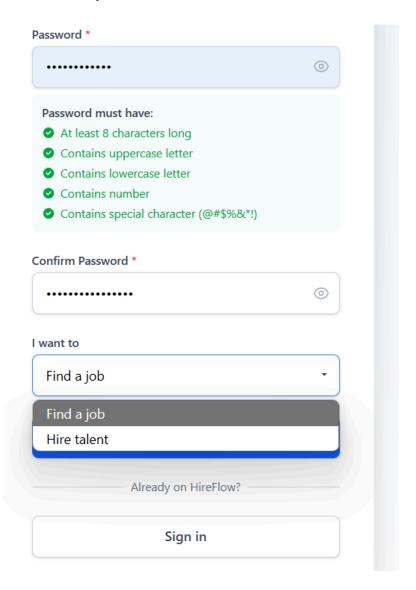
Navigate the HireFlow page and press the sign up button to register for an account



2 Select Role

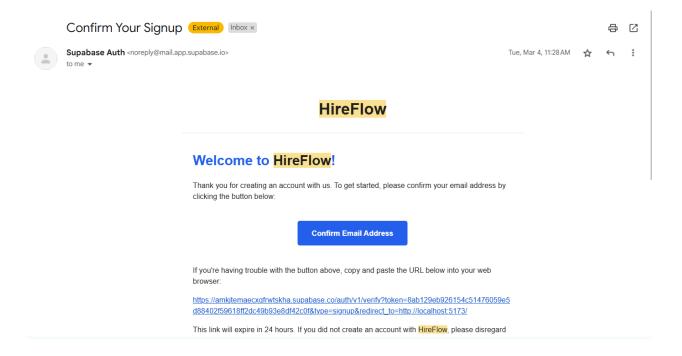
Use the dropdown menu labeled "I want to" to select your role on the platform:

- 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.



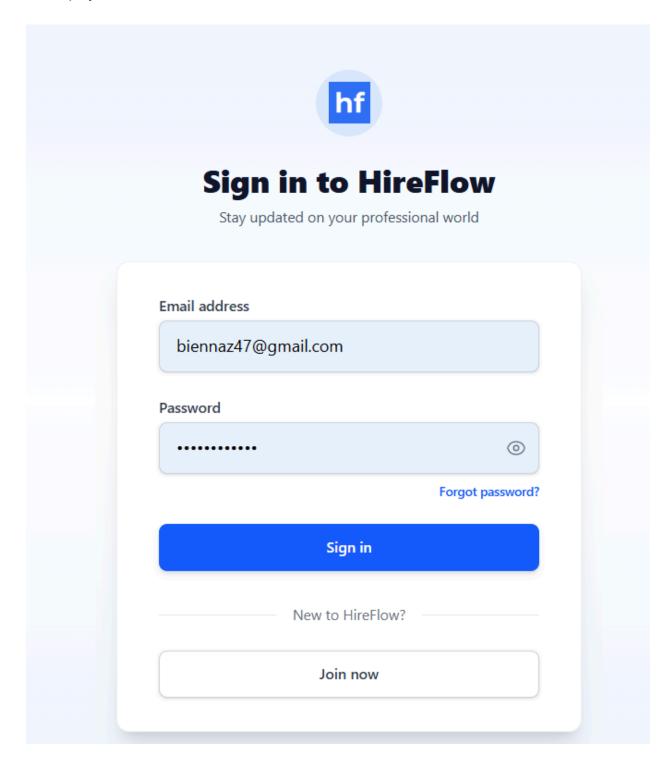
3 Confirm Sign up

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



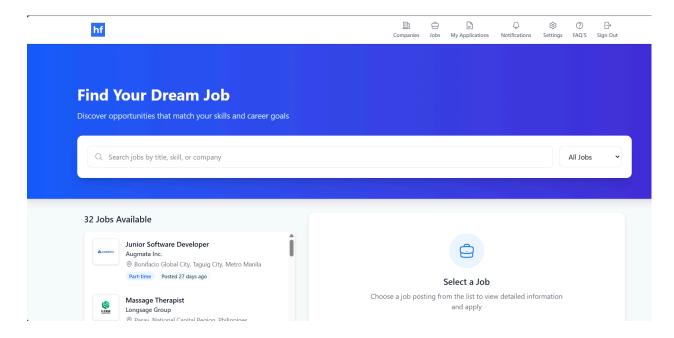
4 Logging In

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.



5 Jobseeker Dashboard

Upon clicking the "Sign In" button, you will be directed to the Jobseeker Dashboard. From here, you can seamlessly navigate through the various features and options to manage and enhance your job search experience.

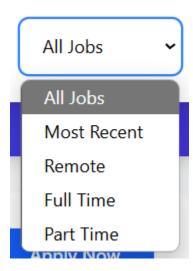


6 Job Available

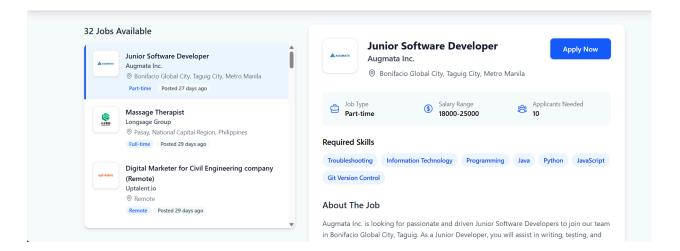
You can use the search bar to easily find available job opportunities that match your preferences and qualifications.



Use the dropdown menu to filter job listings based on your interests, allowing you to quickly find opportunities from the Most Recent added jobs, Remote, Full Time and Part Time

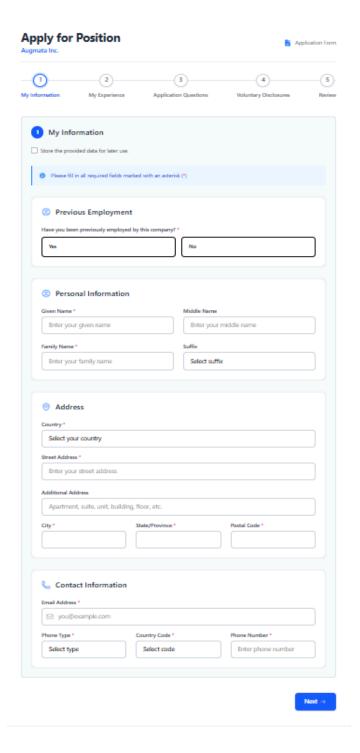


Once you've found a job that matches your preferences, a list of relevant job postings will be displayed. Simply click on a job post to view its full details, including responsibilities, qualifications, and application instructions.



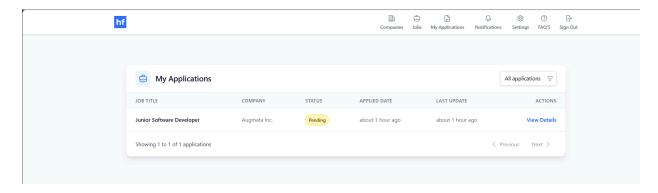
7 Apply

Click the "Apply" button to begin the application process. Here, you will be prompted to enter the applicant's essential information required for the job application.

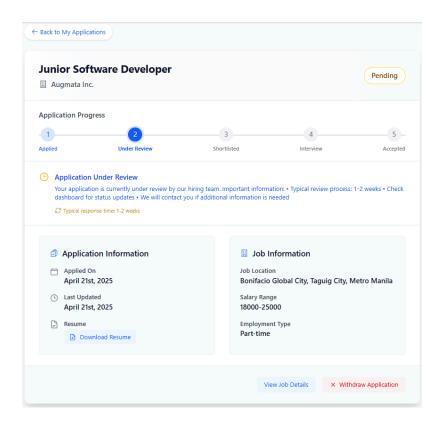


8 My Applications

Click the "My Applications" button located in the upper right corner of the dashboard to view a list of all the jobs you have applied for. This section allows you to track the status of your applications and manage your job search efficiently.

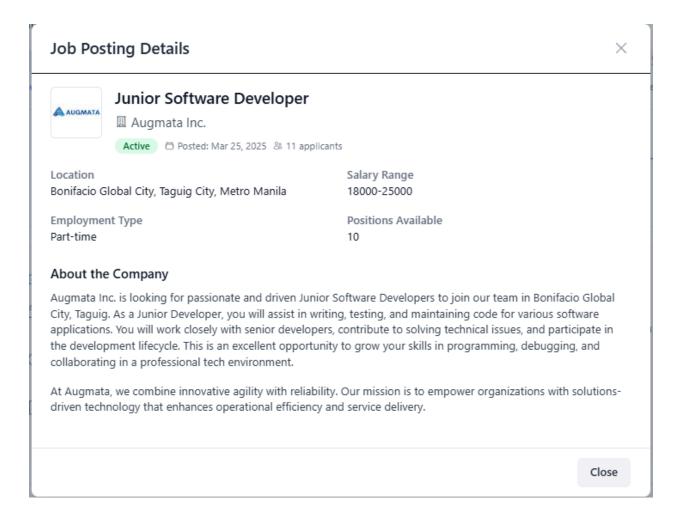


After clicking the "View Details" button, you will be able to see the current status of your application—whether it is under review, pending, accepted, rejected, or scheduled for an interview. This provides transparency and keeps you informed throughout the application process.



You can click the "View Job Details" button to access the full job posting, including information about the company, location, Salary Range, Employment Type, Positions Available

View Job Details



You can click the "Withdraw Application" button to cancel your application for the selected company. This action will remove your application from consideration for that specific job posting.

× Withdraw Application



Withdraw Application

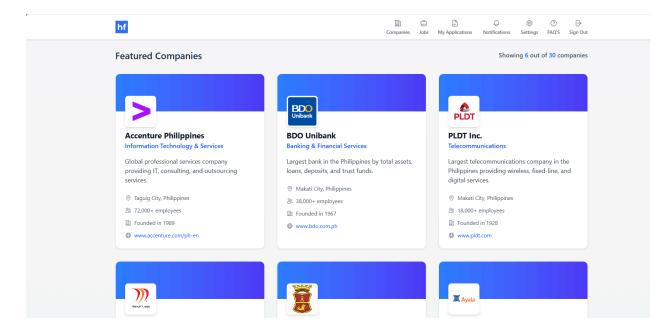
Are you sure you want to withdraw this application? This action cannot be undone and the employer will be notified that you are no longer interested in this position.

Cancel

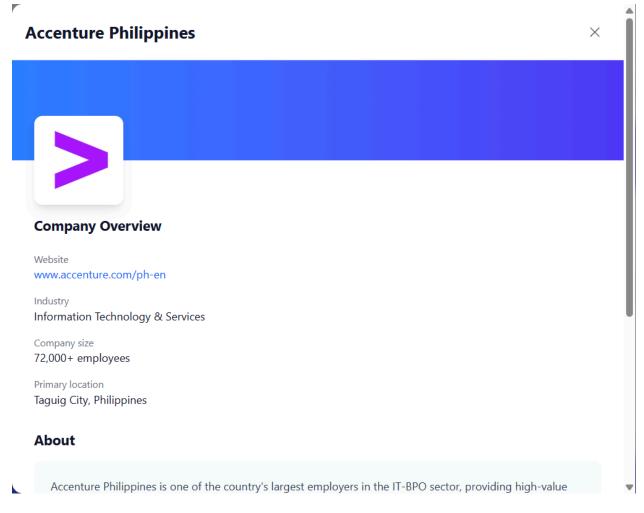
Withdraw Application

9 Companies

Click the "Companies" button located at the top right corner of the dashboard to view a list of available companies. From here, you can explore company profiles and discover potential employers you may wish to apply to.

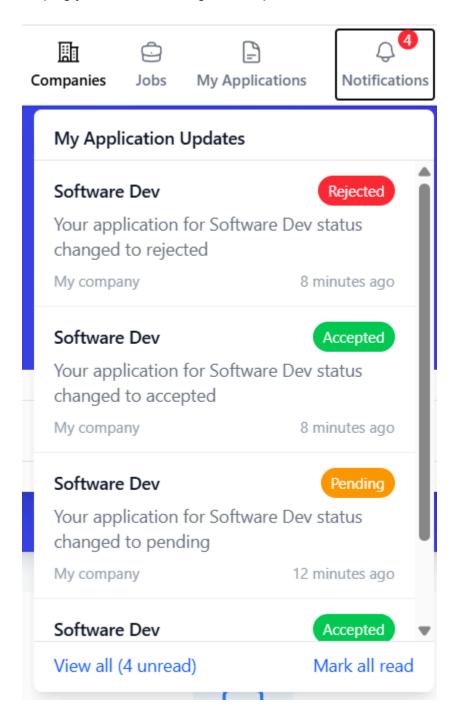


Click on the button of the company you're interested in to view more details. Here, you will find an overview of the company, including its Website, Industry, Company Size, Primary location and About the company

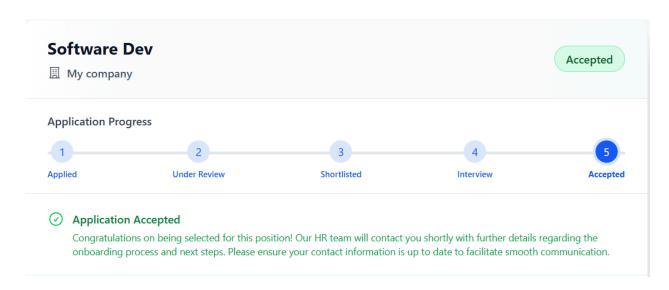


10 Notifications

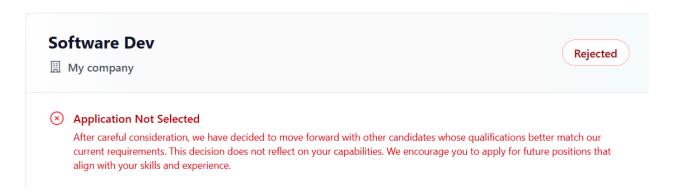
Click the "Notifications" button to view updates on your applications. This section will provide you with important alerts and status changes from the companies you've applied to, keeping you informed throughout the process.



This notification will appear if you click on an update indicating that you have been accepted by the company. It will provide details about the next steps in the hiring process and any additional information you may need to proceed.

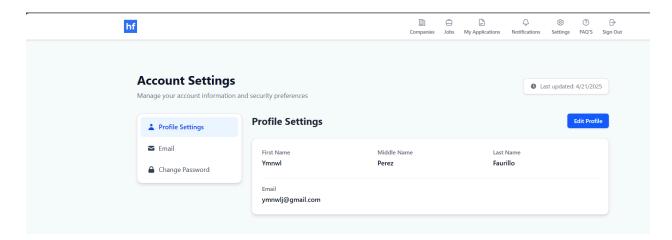


This notification will appear if you click on an update indicating that your application has been rejected by the company. It will include feedback to help you understand the outcome.

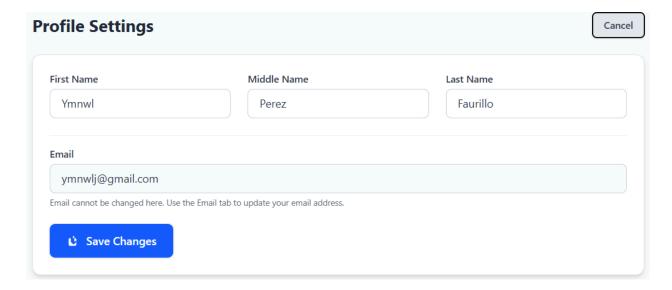


11 Settings

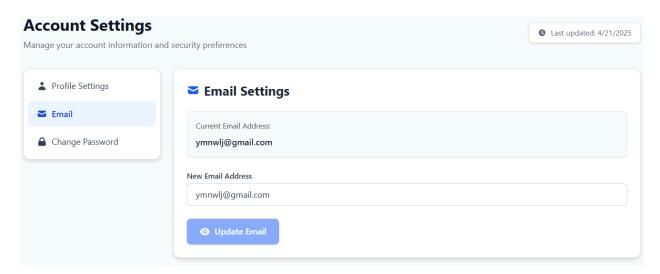
Click the "Settings" button located at the top right corner of the dashboard to access your Account Settings. Here, you can manage your Profile Settings, update your Email, and change your Password as needed.



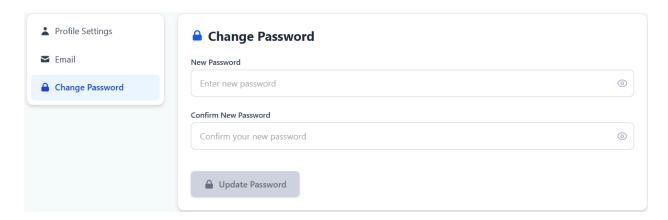
In the "Profile Settings" section, you can customize your username according to your preference and view the email address currently associated with your account. After making any changes, click "Save Changes" to apply and keep your updated username.



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.

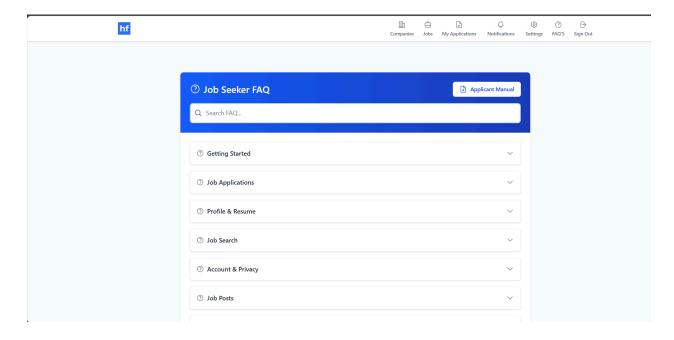


Clicking the "Change Password" option will display the password update interface. Here, you can enter your new password and retype it to confirm. Once completed, click the "Update Password" button to successfully change your account password.

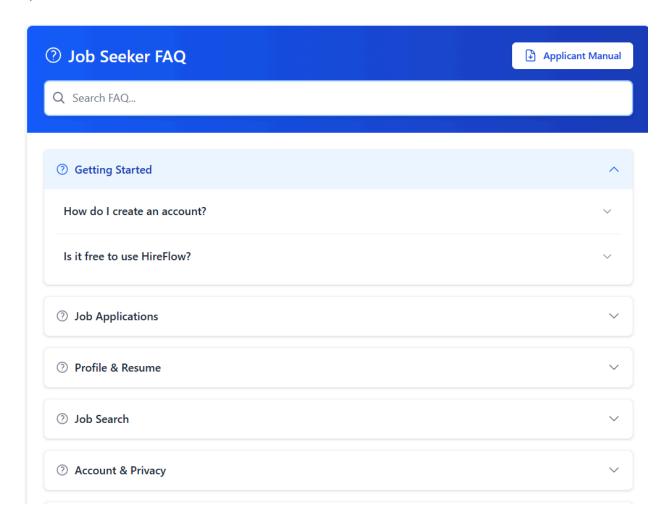


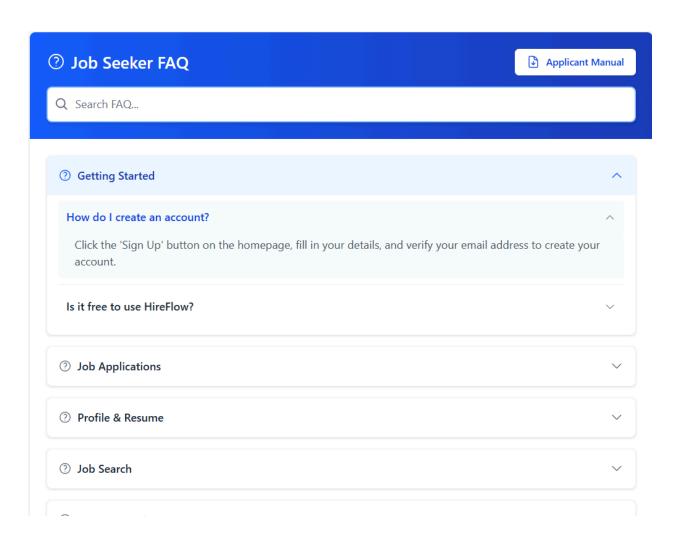
12 FAQs

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.





13 Signout

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



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