# User Authentication Documentation

## Overview

This document details the user authentication workflow for the Job Beacon platform, including user sign-up, data validation, password hashing, and login verification.

## User Sign-Up Workflow

During the sign-up process, users provide the following information:

- First Name
- Last Name
- Middle Initial
- Email
- Phone
- City
- County
- Zip
- Max Commute (mi)
- Remote Preference
- Minimum Salary
- Maximum Salary
- Skills (comma-separated)
- Username
- Password

The sign-up logic is handled by signup.py. When the user submits their information, the system performs the following checks:

- Verifies that the username is not already in use.
- Checks that the provided email does not already exist in the database.

## Password Handling

If validation succeeds, the provided password is securely hashed using bcrypt. The hashed password, along with all other submitted information, is stored in the database.

## Preferences and Skills Storage

Preferences are saved under the student/alum classification. If valid skills are provided, each skill is recorded in the has_skill table and associated with the new user.

## Completion of Sign-Up

After successful registration, the user is notified and redirected to the sign-in page to log in with their new credentials.

## User Login Workflow

Login authentication is handled by login_routes.py. During login, the system checks for:

- Blank username or password fields – producing an error if found.
- Incorrect username or password – returning 'Invalid username or password'.

If the credentials match the stored user information, the login is successful and the user is redirected to the home page, now displaying their profile button.