

Report Details



Resume Matching with Job Descriptions Using PDF CVs

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1.Resume Matching with Job Descriptions Using PDF CVs:-

Build a PDF extractor to pull relevant details from CVs in PDF format, and match them against the job descriptions from the Hugging Face dataset.


Steps:-

• 1. PDF Data Extraction


 **Objective: Extract details from CVs in PDF format.**

- Data Collection
- Data Preprocessing
- Information Extraction

• 2. Job Description Data Understanding

 **Objective: Fetch and comprehend job descriptions from the Hugging Face dataset.**

• 3. Candidate-Job Matching

 **Objective: Match extracted CV details against the fetched job descriptions based on skills and education.**

- Preprocess CV Details and Job Descriptions
- Fine-Tuning a Pretrained Transformer Model
- Feature Extractions
- Matching Process
- Threshold Setting
- CV matches the Job Descriptions

1.PDF DATA EXTRACTION:-

Objective: **Extract details from CVs in PDF format**

Extracting details from CVs in PDF format is a common task in various applications, including recruitment and data analysis. Here's a simplified step-by-step guide on how to extract details from CVs in PDF format using Python

a. Data Collection:-

Obtain a dataset of CVs in PDF format. I can use publicly available datasets or collect CVs from various sources.

Download the Hugging Face dataset containing job descriptions or scrape job descriptions from job boards or company websites.

To install PDFMiner, we can use pip:

b.Data Preprocessing:-

- * Convert the PDFs to text. We can use Python libraries like PyPDF2 or pdfplumber for this purpose.
- * Clean and preprocess the text data to remove noise, such as special characters and unnecessary formatting.

c. Information Extraction:-

- * Use Natural Language Processing (NLP) techniques to extract relevant details from CVs, such as:
 - * Name
 - * Contact Information (phone number, email)
 - * Education History (universities, degrees, graduation dates)
 - * Work Experience (job titles, companies, dates)
 - * Skills and Keywords
 - * Awards and Certifications

2.Job Description Data Understanding:-

Objective: Fetch and comprehend job descriptions from the Hugging Face dataset

* Dataset: <https://huggingface.co/datasets/jacob-hugging-face/job-descriptions/viewer/default/train?row=0>

. To fetch and comprehend job descriptions from the Hugging Face dataset using the Hugging Face datasets library

Now, I am use Python to fetch and understand job descriptions from the Hugging Face dataset:

```
# Load the Hugging Face dataset
# Extract 10-15 job descriptions
# Print the job descriptions
```

Output:-

experience with motion graphics a plus

must possess an online portfolio with a range of sample work

the ideal candidate will have

capacity to rapidly design and develop web pages based on shifting calendars

aptitude to find solutions to novel coding issues and the resourcefulness to troubleshoot issues independently

ability to be a highperforming team player enthusiastic to work with colleagues from marketing through technology

enjoy a challenging and creative atmosphere in the music industry employees work in the music row area of nashville tennessee and receive outstanding benefits including k match medicaldentallifedisability insurance

your cover letter is your opportunity to convince us you are the perfect person for this job take note to identify any experiences

related to the job requirements and the ideal candidate described above

note if you have previously applied for a sony music entertainment job and wish to submit a different résumé or cover letter than the one you last used follow these steps

apply for this job online

click on update profile from there upload a new résumé or copy and paste a new cover letter be sure to click update profile at the bottom of the page when youre done

we communicate with applicants by email if you dont receive an email confirming our receipt of your application please check your spam filter and add us to your allowed email list autoreplycimscom and noreplysonymusiccom

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Job Description 12:

snapshot is looking for a back end developer to join our organization and make an immediate impact and help us ensure we meet our core purpose with every project we live to overdeliver inspirational solutions you may be the right person for us if you

are upbeat meaning that you come to snapshot with a positive attitude and desire to improve each week

own your work from your first day you are the type of individual that takes ownership of your projects and goes above and beyond for all our clients

enjoy a challenge our deliverables and service standards are always changing and new projects kick off daily you stay ahead of the curve and enjoy learning more about the industry to help educate our clients and stay in the know

about us

snapshot is a fullservice digital agency bridging the gap between highquality video production awardwinning website design and creative online marketing strategies we help our clients big and small showcase their companies and products to the world in a fresh engaging way

we have a heavy consistent project load and we need someone ready to hit the ground running if youre looking for a company that will stretch your creative abilities and teaches you the entrepreneurial spirit you belong here our team is selfmotivated disciplined and all work effectively as part of a team

compensation benefits

salaried position with pay depending upon experience

health insurance coverage

life insurance policy

shortterm longterm disability insurance

paid holidays days of vacation and week personal paid time off

retirement plan

and more

description requirements

the candidate will be someone that can code with confidence and create the amazing backend framework to deliver on our clients vision and expectations they will possess critical thinking skills to put to themselves in our clients shoes and troubleshoot issues independently

responsibilities include

helping to create amazing wordpress websites that reflect our clients brand and objectives

execute updates and troubleshoot client websites for a wide variety of issues and resolutions

seamless integrations of hubspot functions and plugins

use of project management software for tracking projects updates and completion

timely completion of projects tracking progress in project management system

professional communication with team

required experience

bachelors degree or equivalent experience

years professional experience

understanding of objectoriented programming and mvc

custom scripting and thirdparty api integration

experience using hubspot integrations

custom wordpress theming sage preferred

custom rest api development

expert level css foundation or bootstrap php mysql

knowledge of responsive and mobilefirst best practices

strong ability to debug crossbrowser issues

detailoriented with strong organizational skills

selfmotivated disciplined and able to work effectively as part of a team

ability to maintain ownership of individual projects from start to finish while also working on collaborative projects

familiarity with illustrator photoshop and sketch

bonus

experience with laravel

basic commandline experience

experience with deploying websites

experience with git or other version control systems

knowledge of css preprocessors such sass and less

job type fulltime

pay per year

benefits

- k
- k matching
- dental insurance
- employee assistance program
- health insurance
- health savings account
- life insurance
- paid time off
- parental leave
- retirement plan
- vision insurance

schedule

- hour shift
- monday to friday

ability to commuterelocate

nashville tn reliably commute or planning to relocate before starting work preferred

education
bachelors required

experience
backend development year required

work location one location

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Job Description 13:

we are seeking a senior ui designer who relishes in methodically applied color palettes and takes pride in your type of ramp when your work is done the mobile apps and responsive websites you create not only look amazing but act as a seamless extension of your clients brand voice and business strategy

act as the lead or contributing designer on projects presenting work across the design ux and development teams

create designs that are onbrand for our clients and follow a projects creative vision and business strategy while putting the user first

collaborate with other groups like developers engagement managers and ux designers to deliver highquality creative for both internal and clientfacing projects

provide constructive art direction alongside your fellow designers work on projects of varying length and complexity

contribute to improvements in our creative process and capabilities

years of related design experience

experience and ability to work in a variety of digitalfocused design applications like sketch invision and illustrator

proficiency in web optimization principles and other production methods

crossplatform web mobile development experience ios android etc

proficiency in producing pixel perfect design files

ability to use motion tools like adobe after effects principle for mac and framer to communicate interaction design and motion

must be legally authorized to work in the united states without the need for employer sponsorship now or at any time in the future

experience creating design systems for enterpriselevel experiences

experience creating icons and other custom illustrations for experiences

curiosity to learn from others and a passion for learning and pursuing your craft

experience working in a consulting environment

participation in the wider design community and connections with creative organizations such as aiga creative mornings etc

ability to take feedback and use it to improve your work

a developed personal style with the ability to scale and adapt as the project needs

sits within our advertising marketing commerce offering

within our group we create content communications and experiences that engage and inspire our clients customers to act

we implement and operate the technology platforms that enable personalized content commerce and usercentric experiences

and in doing so we transform our clients marketing and engagement operations into modern datadriven creatively focused organizations all built to drive growth

from developing a stand out resume to putting your best foot forward in the interview we want you to feel prepared and confident as you explore opportunities at deloitte

check out recruiting tips from deloitte recruiters

at deloitte we know that great people make a great organization

we value our people and offer employees a broad range of benefits

learn more about what working at deloitte can mean for you

our people and culture

our diverse equitable and inclusive culture empowers our people to be who they are contribute their unique perspectives and make a difference individually and collectively

it enables us to leverage different ideas and perspectives and bring more creativity and innovation to help solve our client most complex challenges

this makes deloitte one of the most rewarding places to work

learn more about our inclusive culture

from entrylevel employees to senior leaders we believe theres always room to learn

we offer opportunities to build new skills take on leadership opportunities and connect and grow through mentorship

from onthejob learning experiences to formal development programs our professionals have a variety of opportunities to continue to grow throughout their career

as used in this posting deloitte means deloitte consulting llp a subsidiary of deloitte llp please see

deloittecomusabout for a detailed description of the legal structure of deloitte llp and its subsidiaries

all qualified applicants will receive consideration for employment without regard to race color religion sex sexual orientation gender identity national origin age disability or protected veteran status or any other legally protected basis in accordance with applicable law

deloitte will consider for employment all qualified applicants including those with criminal histories in a manner consistent with the requirements of applicable state and local laws

see notices of various banthebox laws where available

requisition code

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Job Description 14:

design develop and test high quality software features by

understanding user needs and implementing well designed code

follow and implement the code with standards and best practices

good communication sense of urgency a good team player

skills experience

a bachelors degree in computer science engineering information technology or equivalent experience

years professional software development experience with php on wordpress in an enterprise environment

development experience in wordpress wp plugins php htmlcss java script
mysql linux git
strong analytical and debugging skills testing and familiarity with
common debugging tools

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Job Description 15:

if youre passionate about building a better future for individuals
communities and our countryand youre committed to working hard to
play your part in building that futureconsider wgu as the next step
in your career

driven by a mission to expand access to higher education through
online competencybased degree programs wgu is also committed to
being a great place to work for a diverse workforce of
studentfocused professionals the university has pioneered a new way
to learn in the century one that has received praise from academic
industry government and media leaders whatever your role working for
wgu gives you a part to play in helping students graduate creating a
better tomorrow for themselves and their families

position summary

the web designer works on the creative side of producing a website
they are responsible for designing visual elements for use online
reflecting our branding and design aesthetic they create layouts for
landing pages product pages homepages category pages and other areas
of the website ensuring their designs are emotionally compelling
unique and on strategy the position is remote

essential functions and responsibilities

this person will be part our creative team consisting of over
talented people including copywriters video editors and graphic
designers the position will report to the sr manager of brand design
this position works closely with the greater marketing team to
create pages that will help to increase engagement and conversion
within our newly designed website environment

their duties and responsibilities may include

- take a key role in the design and layout of our consumer facing
webpages
- creating wireframes for initial review by the greater marketing
team to make sure they map to the overall marketing strategy
- be able to understand user personas and have ideas for which kinds
of content would be the most effective eg videos infographics header
images charts etc
- create highfidelity comps in at least one webpage mockup tools such
as figma sketch photoshop adobexd invision webflow etc for the
visual layout and design of web pages the ability to program is not
necessary as this role is more design oriented
- experience with web content management systems and page building
tools we currently use adobe aem version

work within our newly developed component library and customize components as needed
advocate a passion for applying user feedback through various testing methods and be able to iterate based on design feedback
collaborate with other designers front and backend development teams content owners project managers and other internal teams to create great user experiences
liaising with copywriters graphic designers developers and project management to ensure that tasks are completed on time
create and lead best ui/ux practices and disciplines and help ensure these guidelines are followed throughout the implementation phase

knowledge skill and abilities
proficient in the use of the adobe creative suite
ability to prototype designs in interactive formats using figma adobe xd sketch or other similar tools
understanding of best practices in designing for responsive websites with a focus on mobile first
high level understanding of visual design principles including color optimization layout hierarchy typography and composition
effectively communicate your designs to developers and other key stakeholders

qualifications

minimum qualifications
years experience working as a ui/ux designer including design development implementation and production deployment
a portfolio of examples of webpage design

as an equal opportunity employer wgu recognizes that our strength lies in our people we are committed to diversity

3. Candidate-Job Matching:-

Objective:-

Match extracted CV details against the fetched job descriptions based on skills and education.

Tools:-

Tools Suggested: Use the Transformers library by Hugging Face. BERT or DistilBERT can be a starting point for embedding extraction.

To achieve my objective of matching extracted CV details against fetched job descriptions based on skills and education using the Transformers library by Hugging Face, I can follow these steps:

A.Data Collection and Preprocessing

- * Gather a dataset of CVs and job descriptions. I need labeled data where each CV is associated with a job description that indicates whether it's a suitable match or not.
- * Preprocess the text data by tokenizing it into appropriate input format for the chosen Transformer model (e.g., BERT or DistilBERT).

B.Preprocess CV Details and Job Descriptions:-

Before matching, I need to preprocess both the CV details and job descriptions. Preprocessing may include tokenization, lowercasing, and handling special characters.

```
# pip install transformers
```

C.Fine-Tuning a Pretrained Transformer Model:-

```
* Choose a pretrained transformer model (e.g., BERT or DistilBERT)
that has
    been pretrained on a large corpus of text data. I can use the
Hugging Face
    Transformers library to load these models.
* Fine-tune the transformer model for my specific task, which is
matching CVs to job descriptions. I'll need to design a suitable
architecture for this, typically involving adding classification
layers on top of the pretrained model.
* Train the model using my labeled dataset. Monitor its performance
using appropriate evaluation metrics (e.g., accuracy, F1-score)
```

D. Feature Extraction:-

For both the CVs and job descriptions, use the fine-tuned transformer model to extract embeddings. These embeddings will represent the textual content of each document. Store the embeddings in a suitable format for easy retrieval and comparison

E. Matching Process:-

- * To match CVs against job descriptions based on skills and education, I can use various methods:
- * Cosine Similarity: Compute the cosine similarity between the embeddings of each CV and job description. This will give you a similarity score, and I can set a threshold to determine whether they are a match.
- * Machine Learning Models: Train a machine learning model (e.g., logistic regression, support vector machine) using the embeddings as features and the labeled data as the target variable.
- * Natural Language Processing Techniques: Use natural language processing techniques such as Named Entity Recognition (NER) to extract specific skills and education information from both CVs and job descriptions. Then, compare the extracted information to find matches.

Output:-

```
# CV details and job description (I'll replace these with my data)

# Tokenize CV details and job description

# Sample CV and job description text

# Load DistilBERT tokenizer and model
Downloading model.safetensors: 100%
268M/268M [00:02<00:00, 96.0MB/s]

# Tokenize and encode CV and job description

# Get embeddings for CV and job description

# Mean pooling of token embeddings

# Compute cosine similarity between CV and job description
embeddings
```

F.Threshold Setting:-

```
* Decide on an appropriate threshold for similarity or
classification scores to determine whether a CV matches a job
description. This threshold should be chosen based on your dataset
and desired trade-off between precision and recall
```

```
# Define a similarity threshold to determine if it's a match
similarity_threshold = 0.75
```

CV matches the job description:-

CODE:-

```
# Check if the CV matches the job description based on the
similarity score
if similarity_score >= similarity_threshold:
    print("CV and job description match!")
else:
    print("CV and job description do not match.")
```

Output:-

```
CV and job description match!
```