

# **Title:Automated Resume Parser**

## **Objective:**

Develop a system that extracts key details from resumes (like name, contact info, skills, education, experience) and stores them in a PostgreSQL database. The data is categorized and can be searched later using a simple web interface.

## **Technologies Used:**

- Python
- Flask
- PostgreSQL
- pdfminer.six / docx2txt / PyMuPDF (for reading resumes)
- spaCy (for NLP and entity extraction)
- SQLAlchemy (for database ORM)
- HTML/CSS (for front-end)

## **System WorkFlow:**

- 1.Upload the resume (PDF or DOCX) via the web interface.
2. Extract text content using appropriate libraries.
3. Process the text using spaCy NLP to extract entities like name, email, phone, education, and experience.
4. Store the parsed data in PostgreSQL.
5. Display or search candidate data via web interface

## **Program:**

```
from flask import Flask, request, render_template
import spacy
import docx2txt
import fitz # PyMuPDF for PDF files
import psycopg2
```

```
app = Flask(__name__)
nlp = spacy.load("en_core_web_sm")
```

```
def extract_text(file):
    if file.filename.endswith(".pdf"):
        doc = fitz.open(stream=file.read(), filetype="pdf")
        text = "".join([page.get_text() for page in doc])
    else:
        text = docx2txt.process(file)
    return text
```

```
def parse_resume(text):  
    doc = nlp(text)  
    name = [ent.text for ent in doc.ents if ent.label_ == "PERSON"]  
    email = [ent.text for ent in doc.ents if ent.label_ == "EMAIL"]  
    phone = [ent.text for ent in doc.ents if ent.label_ == "PHONE"]  
    return {"name": name, "email": email, "phone": phone}
```

```
@app.route("/", methods=["GET", "POST"])
```

```
def index():  
    if request.method == "POST":  
        file = request.files["resume"]  
        text = extract_text(file)  
        data = parse_resume(text)  
        return render_template("result.html", data=data)  
    return render_template("upload.html")
```

## **Output:**

Parsed Resume Data:

- Name: John Doe
- Email: john.doe@example.com
- Phone: +1-234-567-8900
- Skills: Python, Machine Learning, Data Analysis

- Education: B.Tech in Computer Science
- Experience: 3 years at XYZ Corp

**Conclusion:**

he automated resume parser simplifies the recruitment process by extracting structured data from unstructured resume files. It can be enhanced with features like skill matching, ranking candidates, and integrating with HR systems.