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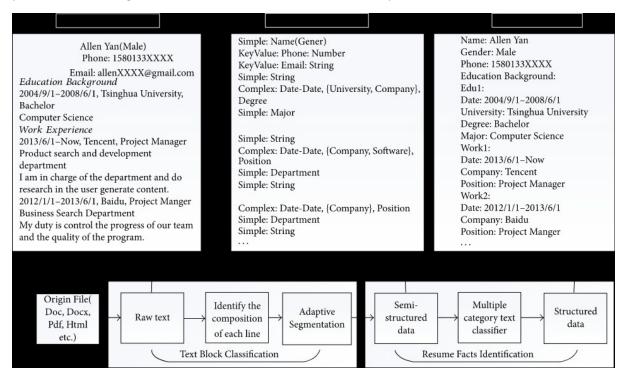
Country: United States

College: Fullstack Academy

Specialization: NLP

Problem description:

Resumes contain a surplus of information irrelevant to the HR/authority, and they have to manually process the resumes to shortlist the promising candidates, thus making the shortlisting task a herculean task for HR. Using the NER (Named Entity Recognition) model of NLP, this problem can be solved by finding and classifying the entities present in each resume into predefined classes such as person name, college name, academic information, relevant experiences, skill set, etc.



Data understanding:

The data that has been provided is a JSON file.

This is what the data looks like:

```
{'content': 'Govardhana K\nSenior Software Engineer\n\nBengaluru, Karnataka, Karnataka - Email me on Indeed: indeed.com/r/Govardhana-K/\nb2 {'content': 'Harini Komaravelli\nTest Analyst at Oracle, Hyderabad\n\nHyderabad, Telangana - Email me on Indeed: indeed.com/r/Harini-\nKoma ('content': 'Hartej Kathuria\nData Analyst Intern - Oracle Retail\n\nBengaluru, Karnataka - Email me on Indeed: indeed.com/r/Hartej-Kathuri ('content': 'Ijas Nizamuddin\nAssociate Consultant - State Street\n\nIrinchayam B.O, Kerala - Email me on Indeed: indeed.com/r/Ijas\nNizam {'content': 'Ijageyaul Ansari\njava developer\n\nPune, Maharashtra - Email me on Indeed: indeed.com/r/Imgeeyaul-Ansari/a7belcc43ad34ac4\n\n {'content': 'Jay Madhavi\nNav\mumbai, Maharashtra - Email me on Indeed: indeed.com/r/Jay-\nMadhavi/1e7d0305af766bf6\n\nI look forwand to b {'content': 'Jitendra Babu\nFI/CO Consultant in Tech Mahindra - SAP FICO\n\nChennai, Tamil Nadu - Email me on Indeed: indeed.com/r/Jitendra {'content': 'Jaytirbindu Patnaik\nAssociate consultantg8AP labs , Bangalore Karnataka\n\nBengaluru, Karnataka - Email me on Indeed: indeed.com/r/Karthihayini ('\nSystems Engineer - Infosys Limited\n\nRajapalaiyam, Tamil Nadu - Email me on Indeed: indeed.com/r/Karthik-GV/1961c4eff806e6f4 {'content': 'Karthik GV\nArchitect - Microsoft India\n\nHyderabad, Telangana - Email me on Indeed: indeed.com/r/Karthik-GV/1961c4eff806e6f4 {'content': 'Kastrik Sharma\nSystems Engineer - Infosys Limited\n\nSalem, Tamil Nadu - Email me on Indeed: indeed.com/r/Kavika-\nBorah\nTeam Member - Cisco\n\nBengaluru, Karnataka - Email me on Indeed: indeed.com/r/Kavika-\nBorah\nTeam Member - Cisco\n\nBengaluru, Karnataka - Email me on Indeed: indeed.com/r/Kaviva-\nBorah\nTeam Member - Cisco\n\nBengaluru, Karnataka - Email me on Indeed: indeed.com/r/Kaviva-\nBorah\nTeam Member - Email me on Indeed: indeed.com/r/Kaviva-\nBorah\nTeam Member - Email me on Indeed: indeed.com/r/Kowhaba-\nPeadalain-\nPeadalain-\nPeadalain-\nPeadalain-\nPeadalain-\nPeadalain-\nPeadalain-\nPeadalain-\nPea
```

It is composed of 200 resumes. Each line represents a two keys dictionary:

"content" is the key to the plain resume text, which looks like this:

```
print(data[0]["content"])
Govardhana K
Senior Software Engineer
Bengaluru, Karnataka, Karnataka - Email me on Indeed: indeed.com/r/Govardhana-K/
b2de315d95905b68
Total IT experience 5 Years 6 Months
Cloud Lending Solutions INC 4 Month • Salesforce Developer
Oracle 5 Years 2 Month • Core Java Developer
Languages Core Java, Go Lang
Oracle PL-SQL programming,
Sales Force Developer with APEX.
Designations & Promotions
Willing to relocate: Anywhere
WORK EXPERIENCE
Senior Software Engineer
Cloud Lending Solutions - Bangalore, Karnataka -
January 2018 to Present
Present
Senior Consultant
Oracle - Bangalore, Karnataka -
```

"annotation" is the key to the labeled resume, which looks like this:

```
print(data[0]['annotation'])

[{'label': ['Companies worked at'], 'points': [{'start': 1749, 'end': 1754, 'text': 'Oracle'}]}, {'label': ['Companies worked at'], 'points': [{'start': 1696, 'end': 1701, 'text': 'Oracle'}]}, {'label': ['Companies worked at'], 'points': [{'start': 1696, 'end': 1701, 'text': 'Oracle'}]}, {'label': ['Companies worked at'], 'points': [{'start': 1696, 'end': 1701, 'text': 'Oracle'}]}, {'label': ['Companies worked at'], 'points': [{'start': 1696, 'end': 1701, 'text': 'Oracle'}]}, {'label': ['Companies worked at'], 'points': [{'start': 1696, 'end': 1701, 'text': 'Oracle'}]}}
```

Each resume feature is represented with a dictionary:

```
dict_keys(['label', 'points'])
"points" is the key to a dictionary that looks like this:
[{'start': 1749, 'end': 1754, 'text': 'Oracle'}]
```

The data provided does seem to have a few problems:

- There are unnecessary spaces or punctuation
- The text contains characters such as "\n" and "\r"

I intend to fix those problems using simple Python commands and Spacy because it has Built-in visualizers for syntax and NER.

<u>GitHub Repo link:</u> https://github.com/colla00/NLP-Resume-Extraction-Project