

# ResumEmphasizer

Resumes with Impact: Creating Strong Bullet Points Julia, Leo, Hailey, JiHee

PEOPLE SPACE

# **Table of Contents**

## 1. Introduction

- 1) Problems
- 2) Solutions
- 3) Business Model Canvas
- 4) Target Audience

# 2. Overall description

- 1) Key Technologies
- 2) Key Features
- 3) Flow Chart
- 4) Pricing

# 3. Specific requirements

- 1) Wireframe
- 2) Annotation Standard
- 3) Training Result

# 4. Complementary Point

- 1) Website
- 2) spaCy

## 1 Introduction

## 1) Problems

Creating a clear and concise resume with phrases and keywords to pass through HR filters is hard. Even when a job applicant has a right experience, without the right keywords and phrases in the resume the applicant can be filtered in the hiring process. Within these problems, we want to create an AI Resume Writer that will match keywords and phrases with the perspective of company job description.

## 2) Solutions

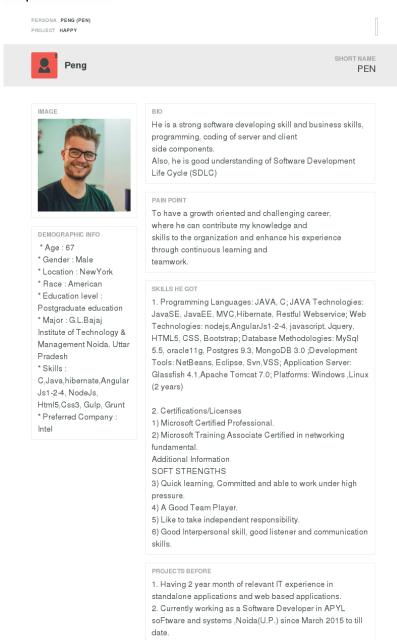
We use AI trained by developers to find bullet points in your resume. AI extracts the requirements from the job description and corresponds them to the ones on your resume. This refines your resume and eventually achieves our final goal of passing the HR filter.

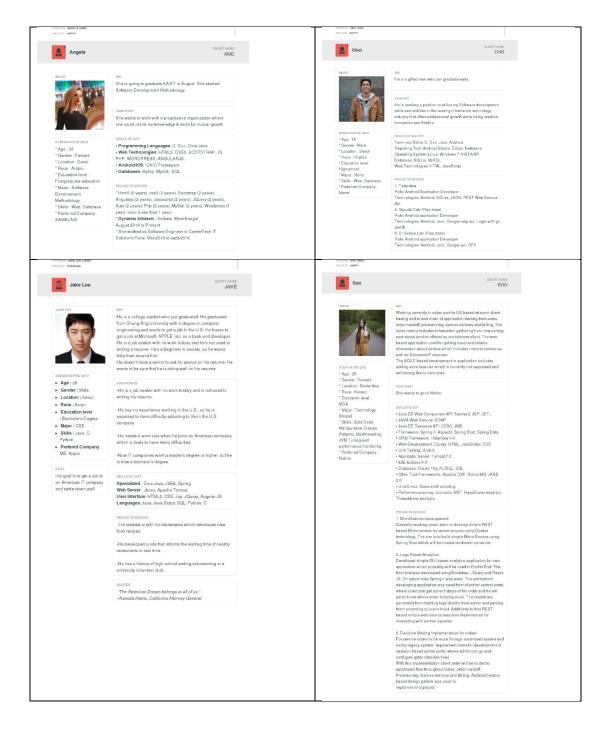
# 3) Business Model Canvas

Key Partner	Key activities	Value propo	sitions	Customer relationshi	Customer segments
- The personal departmen t of the company - Resume Author Web user	- Highlight key sentences after analysis	- Catch key po - Better resun		ps - Get web review	- A job seeker at a company - The personal departmen of the company
	Key resources  - Brand - SW skills			Channels - Web page PC & Mobile	
Cost structure  - Server Maintenance costs - Developer Labor costs			Revenue - Advertise - Applican	ement	

## 4) Target Audience

ResumEmphasizer targets prospective college graduates or social beginners who are new to or difficult to write resumes. They are not sure what they wrote on their resumes meets the company's requirements.





# 2 Overall description <a href="https://github.com/hyun-hyang/ResumEmphasizer">https://github.com/hyun-hyang/ResumEmphasizer</a>

## 1) Key Technology

- Design websites with wordpress.
- Annotate datas with doccano.
- Train AI model with *spaCy*.

# 2) Key Features

- Find bullet points
- Scoring your resumes
- Passing HR Filters

# 3) Pricing <a href="http://44.227.122.114/pricing/">http://44.227.122.114/pricing/</a>

We have a two-track pricing plans: Plan 1 & Plan 2

#### Plan 1: The number of times

just one time	5 times	10 times	30 times	50 times
(\$1)	(\$4.99)	(\$8.99)	(\$25.99)	(\$42.99)

(\$ per trial : 1 / 0.998 / 0.899 / 0.866 / 0.859 )

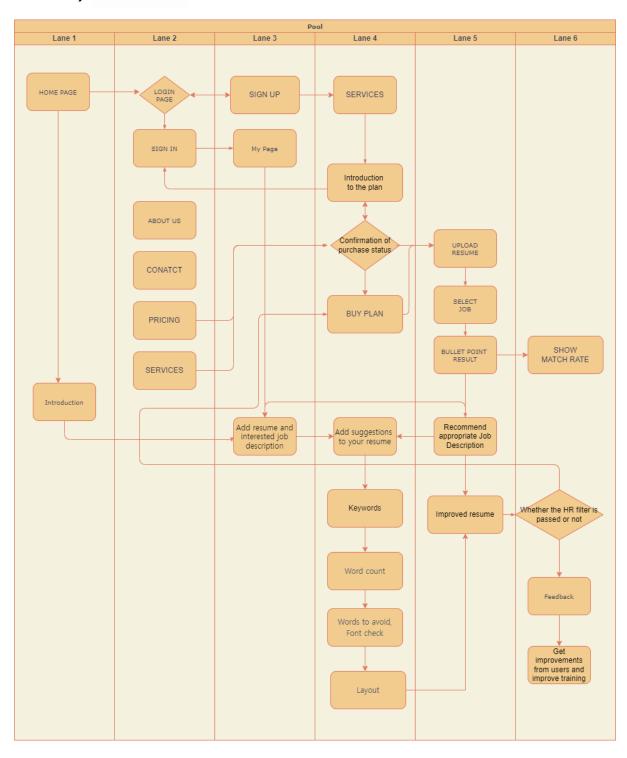
# Plan 2: a fixed-term charge

1 week	2 weeks	1 month	1 year
(\$19.99)	(\$37.99)	(\$69.99)	(\$169.99)

(\$ per day : 2.85 / 2.71 / 2.3 / 0.46 )

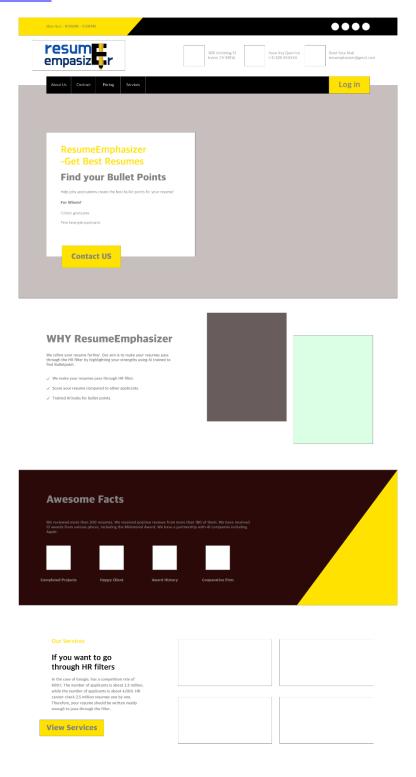
*Free Trials*: You can get 3-free-trials when you create an account. You can also get 1-free-trial each for both you and your friend when you invite friend.

# 4) Flow Chart



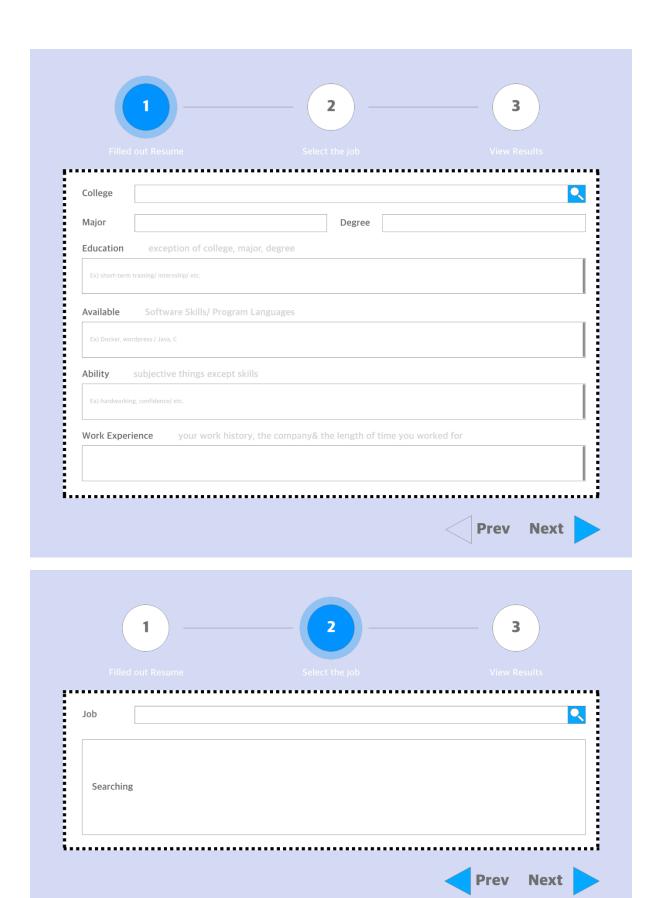
# 3 Specific description

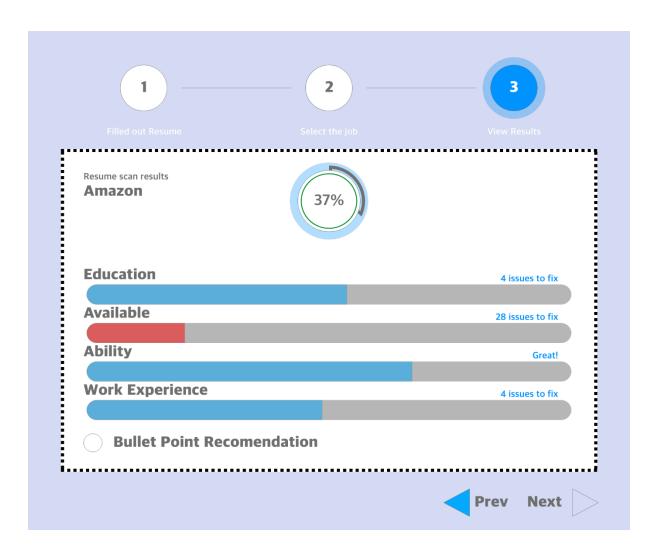
# 1) Wireframe





<Landing page>





Skills	Comparison		Highlighted Skills
Skill	Variations ②	Resume	Job Description
customer experience		×	3
android		4	3
product management		2	2
iphone		×	2
usability		2	1
blackberry		1	1
Translating		×	1
kindle fire		×	1
mobile shopping		×	1
smartphones	$\Theta$	1	1
Skills	Comparison		Highlighted Skills
Skill	Variations ②	Resume	Job Description
passion A Report		×	2
passion A Report		×	2
innovation		×	2
innovation attention to detail		×	1
innovation attention to detail strategic thinking		× × ×	1
innovation attention to detail strategic thinking vision		× × ×	2 1 1
innovation attention to detail strategic thinking vision inspire	Θ	× × × ×	2 1 1 1 1
innovation attention to detail strategic thinking vision inspire Judgment	<u></u>	× × × × ×	2 1 1 1 1 1

- 2) Web Site <a href="http://44.227.122.114/">http://44.227.122.114/</a>
- 3) Promotion Video <a href="https://www.youtube.com/watch?v=syONP3HIYIE">https://www.youtube.com/watch?v=syONP3HIYIE</a>



## 4) Annotation Standard

We gave different labels to resume and job description for annotate. First, we used the labels of work experience, skill, college, major, education, useful, award, age, and degree for resume. Work experience covers the companies, projects, and so on. Skill means specific abilities such as Java Python, while ability means subjective abilities such as challenging and good communication. Secondly, we used company, project, job, required skills, preferred skills, department, benefit, required year for job description. Benefit here means company welfare. By separating required skills and preferred skills, we tried to obtain the accurate image of qualified employee of company.

# 5) Training Result

#### resume

```
i Pipeline: ['transformer', 'ner']
i Initial learn rate: 0.0
           LOSS TRANS... LOSS NER ENTS_F ENTS_P ENTS_R SCORE
 0
       0
                                                         0.00
                85110.86
                        1286.53
                                   0.00
                                           0.00
                                                  0.00
                                         41.08
 8
       200
              2378094.16 114906.59
                                  38.95
                                                 37.03
                                                          0.39
 16
       400
               146751.16 61404.81
                                  41.40
                                          38.94
                                                 44.19
                                                         0.41
24
       600
                74212.85 50472.96
                                  48.99
                                          40.53
                                                 61.93
                                                         0.49
32
       800
                33362.32 44836.03
                                  47.47
                                          38.73
                                                 61.31
                                                         0.47
      1000
                11214.02 39619.26
                                  49.89
                                          44.51
                                                 56.74
                                                         0.50
40
48
      1200
                23498.21 37892.31
                                   49.53
                                          42.14
                                                 60.06
                                                         0.50
                                                 59.44
                                                         0.49
56
      1400
                23167.25 37013.91
                                   49.48
                                          42.38
                                                 59.02
64
                 2990.90
                         36327.45
                                   48.20
                                          40.73
                                                         0.48
      1600
72
      1800
                 1820.65 35828.59
                                   50.63
                                          44.87
                                                 58.09
                                                         0.51
80
      2000
                2164.80 35628.70
                                   49.58
                                          44.74
                                                 55.60
                                                         0.50
```

```
resume num 6 test
Java Developer Sourcepep Pvt Ltd ->>>> work experience
J2EE ->>>> skill
Spring MVC ->>>> skill
Core Java ->>>> skill
Rest Web services ->>>> skill
Ajax ->>>> skill
Elasticsearch ->>>> skill
Pune University ->>>> college
• Programming Language ->>>> work experience
C ->>>> skill
JAVA ->>>> skill
Advance Java ->>>> skill
Spring MVC ->>>> skill
Rest Web services ->>>> skill
Java integration with MongoDB ->>>> skill
Ajax ->>>> skill
Elasticsearch ->>>> skill
• Database: ->>>> work experience
Oracle 10g ->>>> skill
MySQL ->>>> skill
MongoDB ->>>> skill
• Operating System ->>>> work experience
Windows 7, 8, XP ->>>> skill
Fedora ->>>> skill
```

#### <resume.ipynb>

## - job description

```
----- Training pipeline -----
i Pipeline: ['transformer', 'ner']
i Initial learn rate: 0.0
         LOSS TRANS... LOSS NER ENTS_F ENTS_P ENTS_R SCORE
               1148.20 1672.16 2.80 1.49 24.73 0.03
                              2.07 5.24 1.29
8.74 26.24 5.24
             289004.99 83154.96
  6
      200
                                                 0.02
                                                0.09
 12
             164097.20 44477.16
      400
 18
      600
             199007.00 42765.33 22.04
                                    19.18 25.91
                                                 0.22
 25
      800
              55244.16 36112.11
                              30.57
                                    30.37
                                           30.76
 31
      1000
              42192.46 30847.47
                              27.87
                                    23.95 33.33
 37
      1200
              36670.09 29590.51
                              26.60
                                    28.40
             12739.44 22502.40
                              27.56 40.94 20.77
 50
      1600
              10430.67 21499.32
                              26.12
                                    33.86
                                           21.27
                                                  0.26
 56
              16501.21 20615.57
                              26.81 30.62 23.84
      1800
                                                 0.27
              6425.92 16978.58 26.38 31.02 22.95
 62
      2000
                                                 0.26
jd num 10 test
Backend Developer ->>>> job
Angular ->>>> required skills
CSS ->>>> required skills
Bootstrap ->>>> required skills
Material ->>>> required skills
Experience in the development of hybrid apps ->>>>> required skills
python ->>>> required skills
Programming ->>>>> preferred skills
HTML ->>>> required skills
python ->>>> required skills
Master's ->>>> required skills
```

# **4 Complementary Point**

### 1) Website

We are not yet at the completion stage in implementing the web page. For example, if you upload your resume on a web page, Al should review it, but spaCy and the site have not yet been linked. In addition, according to the Business model canvas, advertising was expected to be the main source of income, but the advertising function was not implemented.

## 2) spaCy

We trained about 150 resume and 150 job descriptions we annotated on spaCy, which are insufficient in quantity and inaccurate in annotate, resulting in occasional inappropriate learning results. In addition, there is a regret that more accurate results would come out if the label was further subdivided.

We had to match resume and job description with a spaCy-trained model, but we are still in the unfinished stage. Furthermore, we should have implemented unique features that other companies do not have, such as measuring the score of resumes, but we are still in the unfinished stage.