# CPS 4951 - Senior Project: Proposal

## **Project Title:**

*A.I Resume Parser*

## Project Topic:

Our project aims to create a Resume Parser using AI to enhance the hiring process for job recruiters and simplify the job application process for applicants. The Resume Parser will scan resumes to assess whether an applicant's qualifications meet the job requirements and provide feedback to the applicant if their resume requires improvement.

## **Group Name:**

*Artificial J.A.M.A*

## **Group Members:**

*Joshua Roasa, Anya Carr, Molisha Khosla, Adriana Altamirano*

## Project Purpose:

The primary objective of this project is to empower recruiters to efficiently identify and source talented applicants by eliminating the barrier caused by format issues and mitigating bias from AI that may prevent otherwise qualified candidates from passing through resume parsing systems. On the applicant side, the goal is to provide candidates with real-time feedback, specifically addressing any formality issues within their resumes. This approach aims to ensure a smoother and more inclusive application process, fostering better matches between talented individuals and prospective employers.

## **Project Deliverables:**

*Applicant Program*: Site that gives feedback to the applicants if their resume fits the Site Requirements to pass through the AI Resume Parser and suggest what changes they could make and try it again when their resume is rejected.

Note (Additional feature if ever): Additionally, it can check whether the resume contains keywords that matches with Hiring Manager requirements

*Hiring Manager Program*: Site that shows resumes that pass an AI Resume Parser based on keyword matching with past requirements and job descriptions

## **Required Team Skills:**

| Technical Skills: | Experienced | Who will learn |
| --- | --- | --- |
| HTML | Adriana, A’nya, Molisha, Joshua |  |
| CSS | Adriana | Joshua, A’nya, Molisha |
| Python | A’nya, Molisha | Adriana, Joshua |
| PHP | Adriana, Joshua | A’nya, Molisha |
| MYSQL | Adriana, Joshua | A’nya, Molisha |
| Visual Studio Code | Adriana, A’nya, Molisha, Joshua |  |
| Github | A’nya, Joshua | Adriana, Molisha |

| Soft Skills | Experienced | Who will learn |
| --- | --- | --- |
| Team-collaboration | A’nya, Adriana, Joshua, Molisha |  |
| Critical Thinking | Adriana, A’nya, Joshua, Molisha |  |
| Problem Solving | Adriana, A’nya, Joshua, Molisha |  |

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## **Team Members’ Roles:**

*\*Per Time Frame, roles might change*

Joshua - Analyst, Design, Developer

Anya- Data Analyst

Molisha - Analyst, timekeeper

Adriana - Product Manager(Documentation Management) & Developer

## **Timeframe:**

Software Development Life Cycle(SDLC):

**Phase 1 Planning ( Week 1) & Phase 2 Planning (Week 1 - Week 2)**

P1 Dates: January 29 - February 5

P2 Dates: January 29 - February 12

1. Phase 1: Identifying Problems (Planning)
2. Phase 2: Determine Human Information Requirements (Planning)

**Phase 3 Analysis (Week 2 - Week 3)**

Dates: February 5 - February 12

1. Analyzing system needs (Analysis)

**Phase 4 Design (Week 3 - Week 4)**

Dates: February 12 - February 19

1. Designing recommended system (Design)

**Phase 5 Implementation (Week 4 - Week 10)**

Dates: February 19 - April 1

1. Developing and Documenting Software (Implementation)

**Phase 6 Testing & Integration (Week 10 - Week 13)**

Dates: April 1 - April 22

1. Testing and Maintaining the system (Testing & Integration)

**Phase 7 Maintenance (Week 13 - Week 15)**

Dates: April 22 - May 6

1. Implementing and Evaluating the system (Maintenance)

## **Collaboration:**

**Meeting Collaboration:**

Online Weekly Meeting through Google Meet

**Communication Channel:**

Discord <https://discord.gg/2g6QyKxm>

**Collaborative Workspace:**

Google Drive <https://drive.google.com/drive/folders/103ijrckpW5Vm50xFYVkoMLqErkk9Q42Y?usp=sharing>

**Timeline/Task Management:**

Jira <https://capstonehub.atlassian.net/jira/software/projects/JRS/boards/1/timeline?shared=&atlOrigin=eyJpIjoiNTI4OGFkZmVjYmJkNGZkNzgwNTcxNjdlNDU5MjEwZTciLCJwIjoiaiJ9>

**Final Documentation Management:**

Confluence <https://capstonehub.atlassian.net/l/cp/NB14wdxf>

## Resources:

**1. Resume Parser Using Python | Extract Data from Resume Python**

<https://www.youtube.com/watch?v=8fVEMdHKmqM>

**2. Project – How to build a Resume Parser using Python**

<https://www.geeksforgeeks.org/project-how-to-build-a-resume-parser-using-python/>

**3**[**.**](https://blog.apilayer.com/build-your-own-resume-parser-using-python-and-nlp/) **Build your own Resume Parser Using Python and NLP**

<https://blog.apilayer.com/build-your-own-resume-parser-using-python-and-nlp/>

**4. A simple resume parser used for extracting information from resumes**

<https://github.com/OmkarPathak/pyresparser>

**5. Build Resume Parser using Spacy Version 3 | CV Parser | NER Project | NLP Project | Machine Learning**

<https://youtu.be/C23DAW5iSiA?si=lEsqigbmNyq4ecGe>

**6. Software Development Life Cycle**

<https://medium.com/agileinsider/how-does-the-sdlc-play-a-role-in-the-success-of-product-development-and-launch-a17baaac1054> -

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