



Requirements specification document

Career Center Platform



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Contents

1	Project context	3
1.1	Business Domain	3
1.2	Problematics	3
1.3	Solutions	4
2	Functional requirements	4
2.1	Business Objectives	4
2.2	Data Science Objectives	4
3	Non-functional requirements	5
3.1	Performance requirements	5
3.2	GUI requirements:	5

1 Project context

1.1 Business Domain

A career center is an office dedicated to help people find jobs and develop professional skills. These offices Typically located on college campuses. In career centers, trained career development professionals can help you choose a career path, find and apply for open positions, create a resume and learn skills that employers might prefer in candidates .

The career center seeks to fulfill this mission through the following objectives:

- To assist students in acquiring information, knowledge and competencies that enhance individual career development, academic success and employability .
- To provide services and resources that support students and graduates candidacy with graduate/professional schools and employers .
- To develop relationships with employers for the purpose of exploring the possibilities of internships and professional employment opportunities for students and graduates

The employability pole can be used by students and graduates to research the various career alternatives and choose the one that best fits their interests and skill set. There are numerous options available, regardless of whether someone is choosing a career path or looking for internships. Employability pole receives job offers from companies, which administrative will then email or put on the "Esprit Connect" portal.

1.2 Problematics

- **Large volume of data** : several job offers and internship offers in different forms (word,pdf,images...) which requires a significant amount of time to manage.
- **Slow hiring process** : suffering from traditional methods, as a result many recruiters missed the opportunity to recruit talent and job seekers missed the opportunity to be recruited.
- **No awareness of the skills market's demands** : There is no visibility on skills required by the job market and the geographical distribution of the offers.

- **Limited ability to match users with jobs:** The platform's capacity to match users with jobs would be constrained without personalized recommendations.
- **Not enough Relevant Experience :** Due to a lack of competencies or experiences, several graduates and students were rejected in interviews.

1.3 Solutions

Based on the provided problematics, this project will provide a platform to enable students and alumni identify the requisite skills for particular job offers and internships. Additionally, a visual representation of the talent tracking method will be provided.

2 Functional requirements

2.1 Business Objectives

- Segmenting job offers and internships based on the industry, location, current staff, open positions and requirements .
- Provide employers with a list of potential candidates and target job seekers with appropriate recommendations for the best job opportunities and assign each candidate a list of job offers in short timeline
- Providing visibility to job and internship offers with a visual presentation that highlights the most important points based on various criteria, including skills, time, technologies, and geographic distribution.
- Assist students in enhancing their resumes to better meet employer criteria.

2.2 Data Science Objectives

This would require the platform to have a robust data processing and analysis infrastructure, as well as advanced machine learning and deep learning algorithms to support the recommendation system.

- Analyze multiple types of data and translate them into a comprehensive form using NLP
- **Clustering :** categorize offers and assign each in a group

- **Reporting and prediction** : generate a set of KPIs to determine the number of offers per period, geographic distribution, domain and identify the most requested technologies using PowerBi
- **Recommendation system based on content** : matching jobs and internship with candidates using classification algorithms
- **Recommendation system based on user** : matching profiles to identify skills needed

3 Non-functional requirements

3.1 Performance requirements

- **Scalability:** The system should be able to scale to handle an increasing amount of data and job offers, as the number of job offers received by the platform increases.
- **Reliability:** The system should be reliable, with minimal downtime and errors.
- **Maintainability:** The system should be easy to maintain and update, with clear documentation and a modular design.
- **Response Time:** Processing Time and Initial Loading and Subsequent Loading Times.

3.2 GUI requirements:

- **GUI ergonomics:** includes the determination of user needs, interface design, user support and usability testing.
- **User-friendly software** technical solution that is easy for all, or most people, to use to get their jobs done. of user needs, interface design, user support and usability testing.