# Automated Resume Screening System using Machine Learning And Knowledge Graph

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# Outline

Suggestion and answers

Introduction

Problem Addressed and solution

Proposed Method

# Suggestions and Answers

| SUGGESTIONS | NEW |
|---|---|
| Each figure in the slides must be labelled | Figures are labelled corresctly |
| Clarity about the method used in the project. (Knowledge Graph) | Explaining the method as a comparison manner. (Using Machine learning Also) |
| Clarity on the title of project | Made a change in the title |
| Reduce the text in slides | Tried to Reduce it. |

Figure: Suggestions and Answers

# Introduction

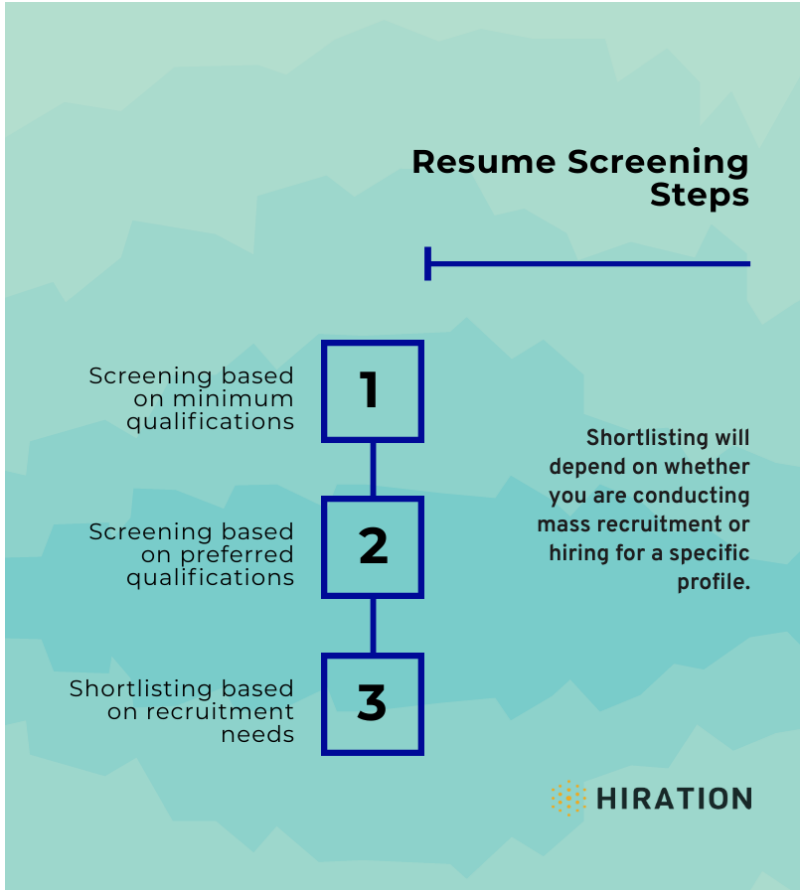


Figure: Resume Screening Methodology

# Introduction

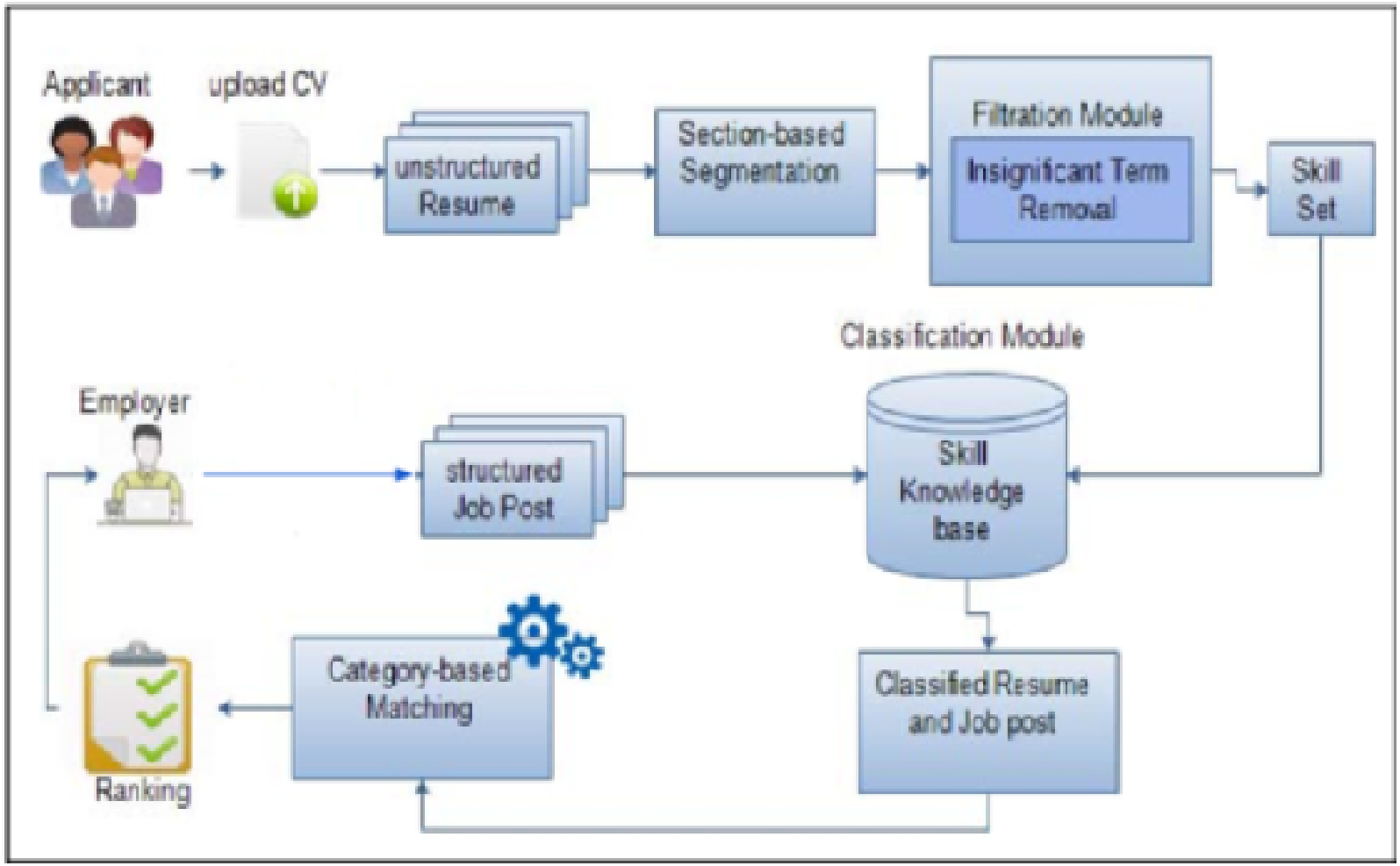


Figure: Automated Resume Screening Using NLP

# Introduction

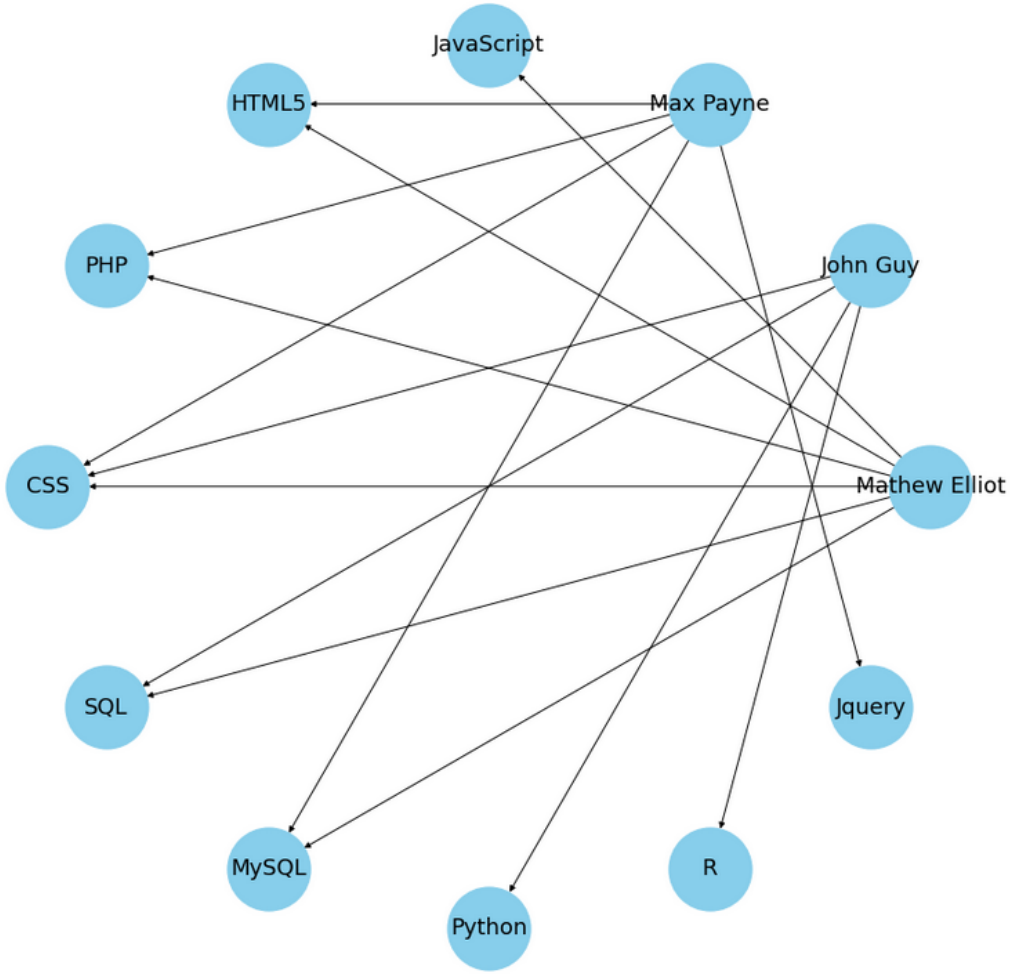


Figure: Automated Resume Screening using Knowledge Graph

# Problem

| Problem Addressed | Solution |
|---|---|
| *Not much accurate.At times human error occurs* | *More Realiable* |
| *Time consuming* | *Fast* |
| *Investment is required for human Resources* | *Investment is mainly for testing ang training* |
| *Cannot work with large data* | *Can work with large dataset* |
| *Human Observation Required* | *No human Observation Required* |

Figure: Problem Addressed and Solution

# Method

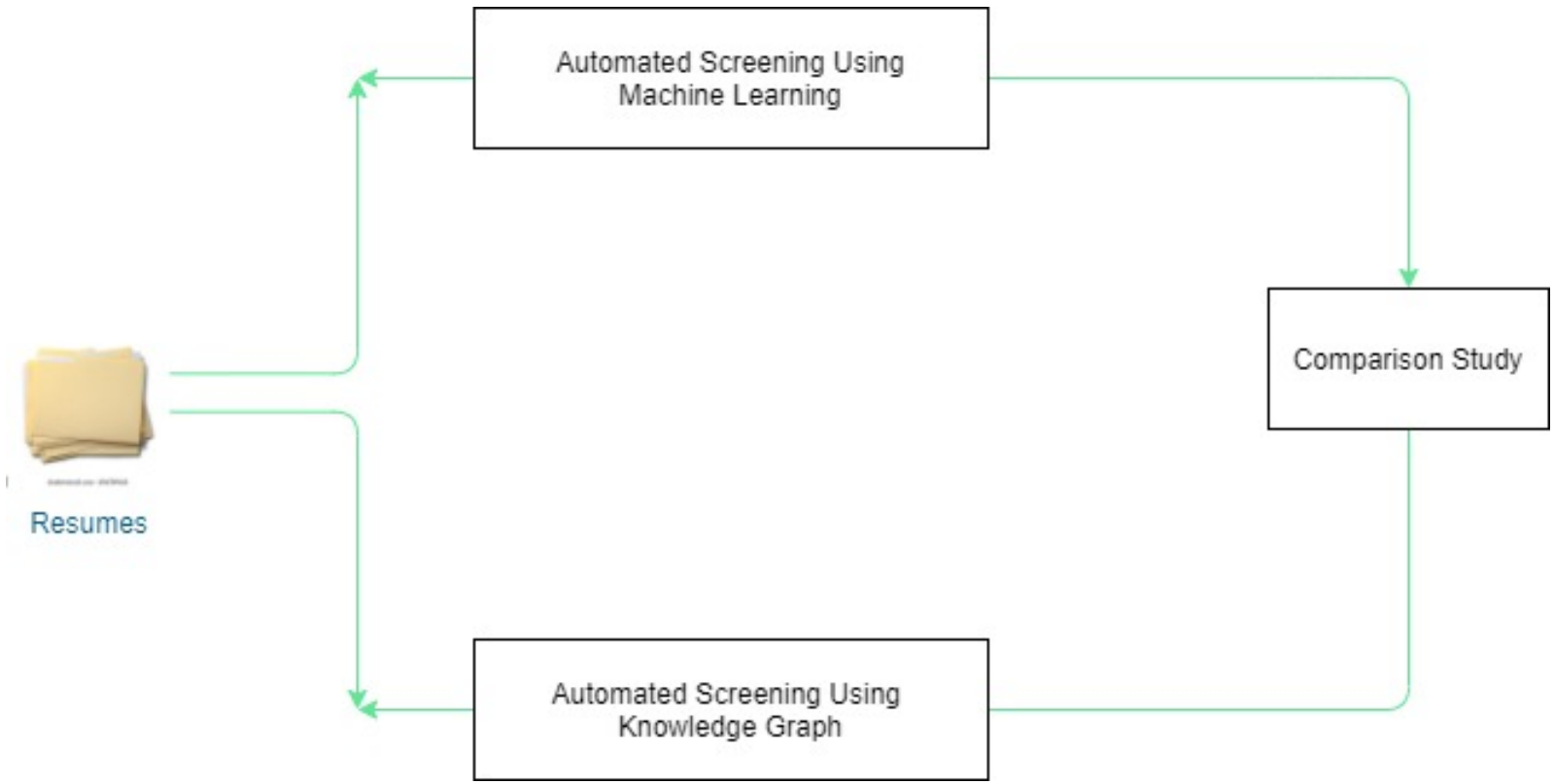


Figure: Method we are following

# Proposed Method

## Automated Resume Screening using Machine Learning

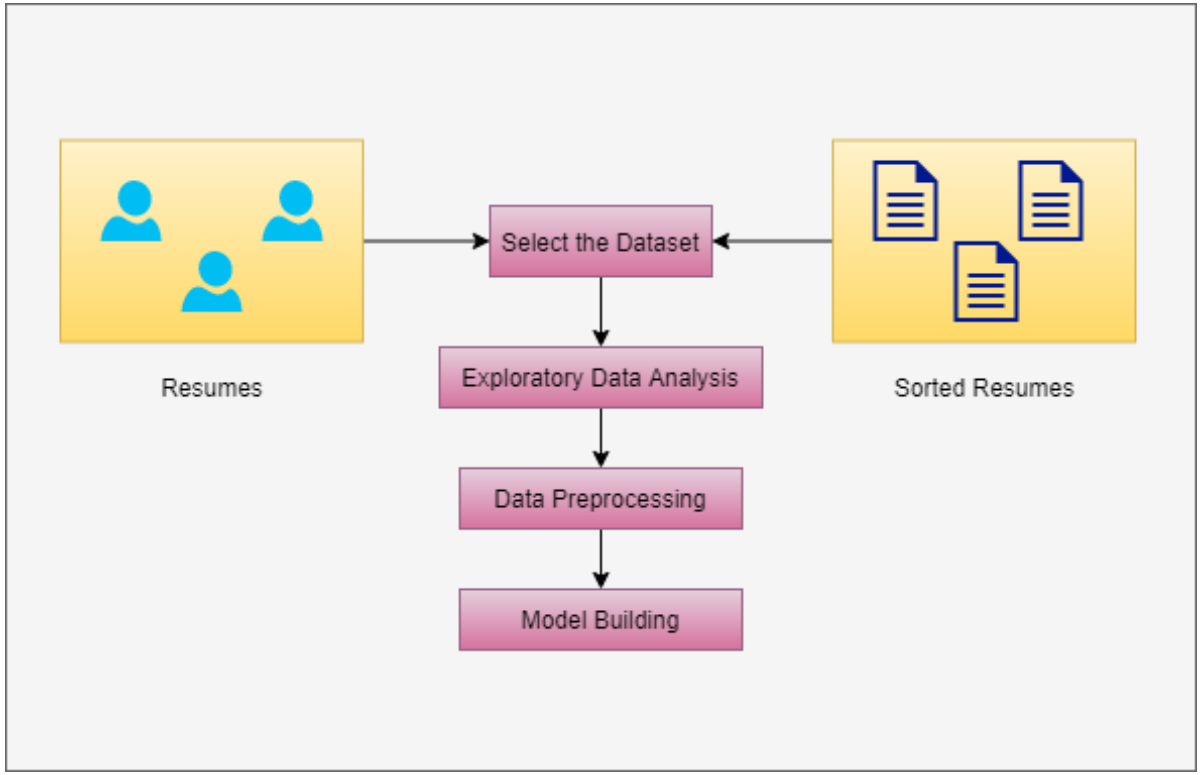


Figure: Automated Resume Screening using Machine Learning

# Proposed Method

## Resume Screening Using Knowledge Graph

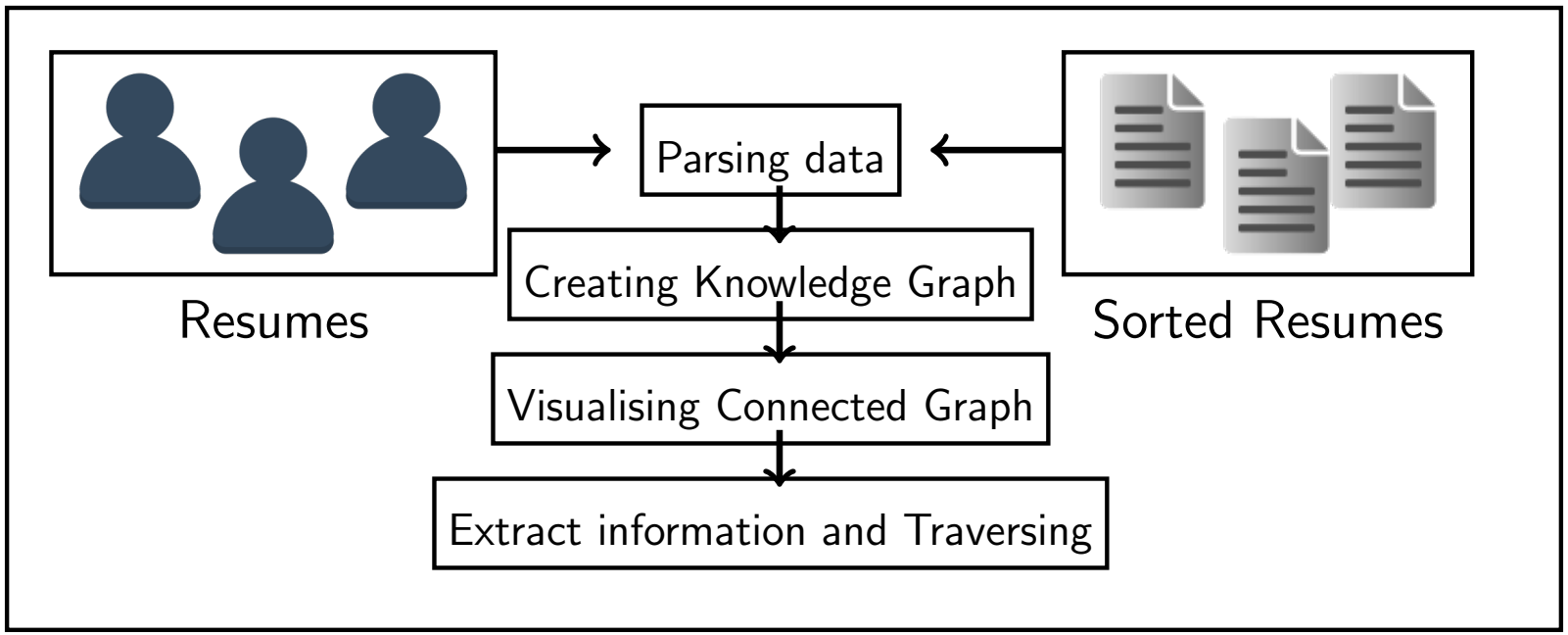


Figure: Conceptual workflow of proposed solution

# Proposed Method

## Work Flow

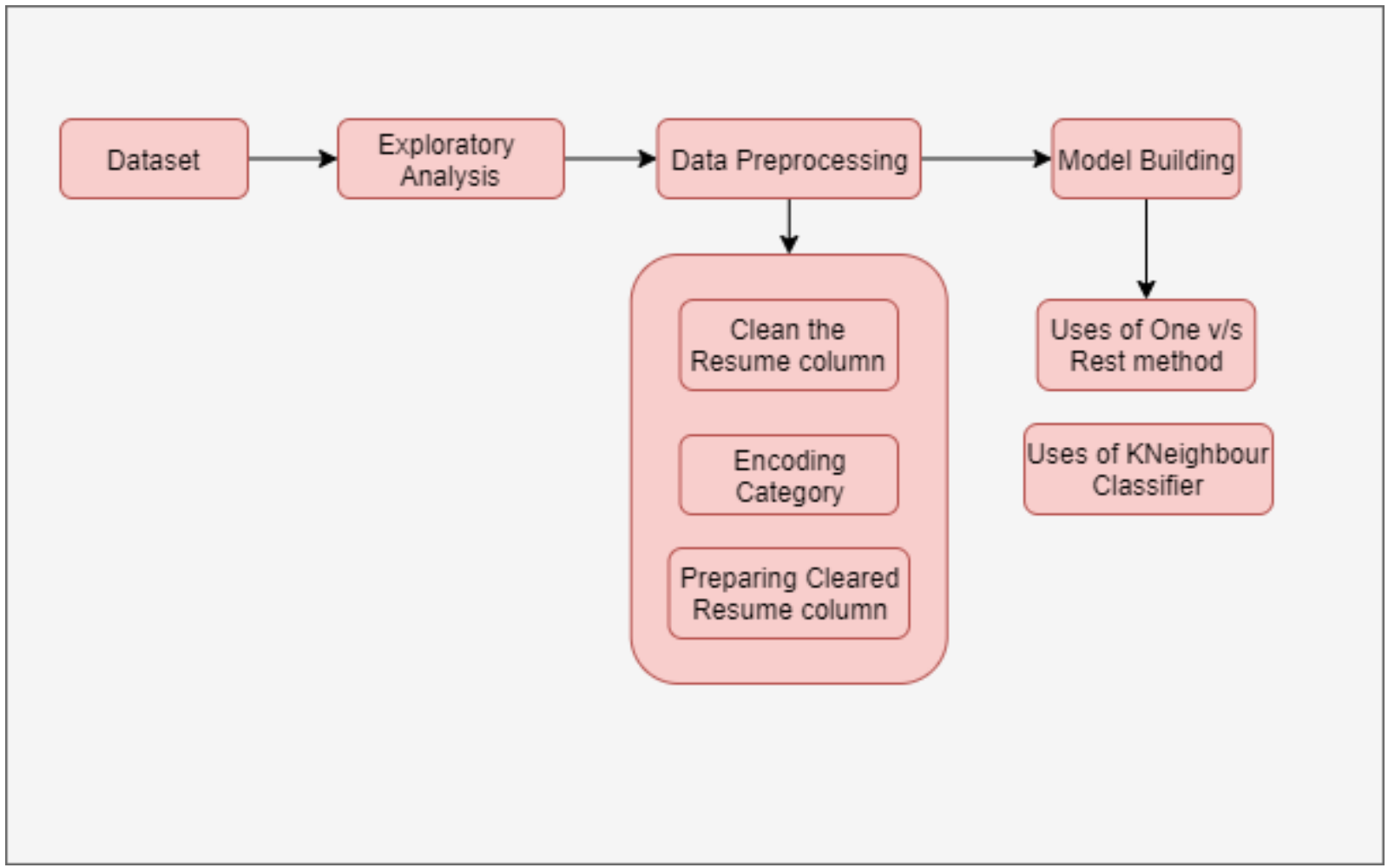


Figure: Workflow of using Machine Learning

# Proposed Method

## Work Flow

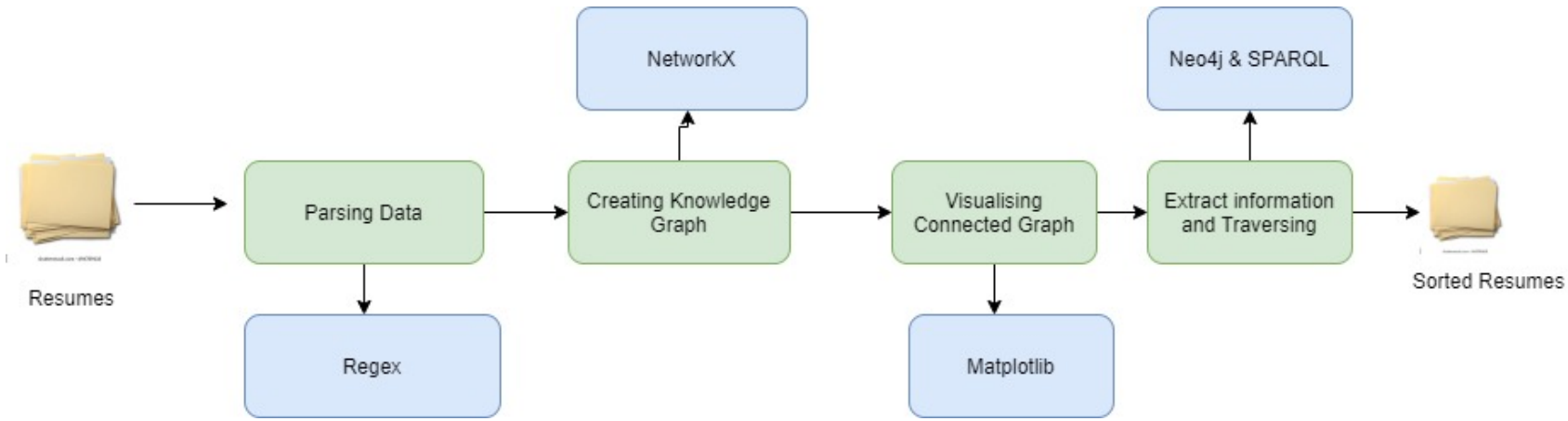


Figure: Workflow of using Knowledge Graph

# Validation

## Dataset

| | Category | Resume |
|---|---|---|
| 0 | Data Science | Skills * Programming Languages: Python (pandas... |
| 1 | Data Science | Education Details \r\nMay 2013 to May 2017 B.E... |
| 2 | Data Science | Areas of Interest Deep Learning, Control Syste... |
| 3 | Data Science | Skills â¯c R â¯c Python â¯c SAP HANA â¯c Table... |
| 4 | Data Science | Education Details \r\n MCA YMCAUST, Faridab... |

Figure: Dataset

# Validation

## Dataset,Platform

| | |
|---|---|
| Dataset | https://www.kaggle.com/gauravduttakiit/resume-dataset |
| Programmimg Language | Python |
| Platform | Jupiter Notebook or Google Collab or Pycharm |

Figure: Dataset/Platform

# Result

```
Accuracy of KNeighbors Classifier on training set: 0.99
Accuracy of KNeighbors Classifier on test set: 0.99
```

| | precision | recall | f1-score | support |
|---|---|---|---|---|
| 0 | 1.00 | 1.00 | 1.00 | 3 |
| 1 | 1.00 | 1.00 | 1.00 | 3 |
| 2 | 1.00 | 0.80 | 0.89 | 5 |
| 3 | 1.00 | 1.00 | 1.00 | 9 |
| 4 | 1.00 | 1.00 | 1.00 | 6 |
| 5 | 0.83 | 1.00 | 0.91 | 5 |
| 6 | 1.00 | 1.00 | 1.00 | 9 |
| 7 | 1.00 | 1.00 | 1.00 | 7 |
| 8 | 1.00 | 0.91 | 0.95 | 11 |

Figure: Result

# References I



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T2kg: An end-to-end system for creating knowledge graph from unstructured text.
In *Workshops at the Thirty-First AAAI Conference on Artificial Intelligence*, 2017.


Jose L Martinez-Rodriguez, Ivan Lopez-Arevalo, and Ana B Rios-Alvarado.
Openie-based approach for knowledge graph construction from text.
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