

A vibrant, abstract background on the left side of the slide features several glowing, wavy lines in shades of green, yellow, orange, and red against a dark blue and black gradient.

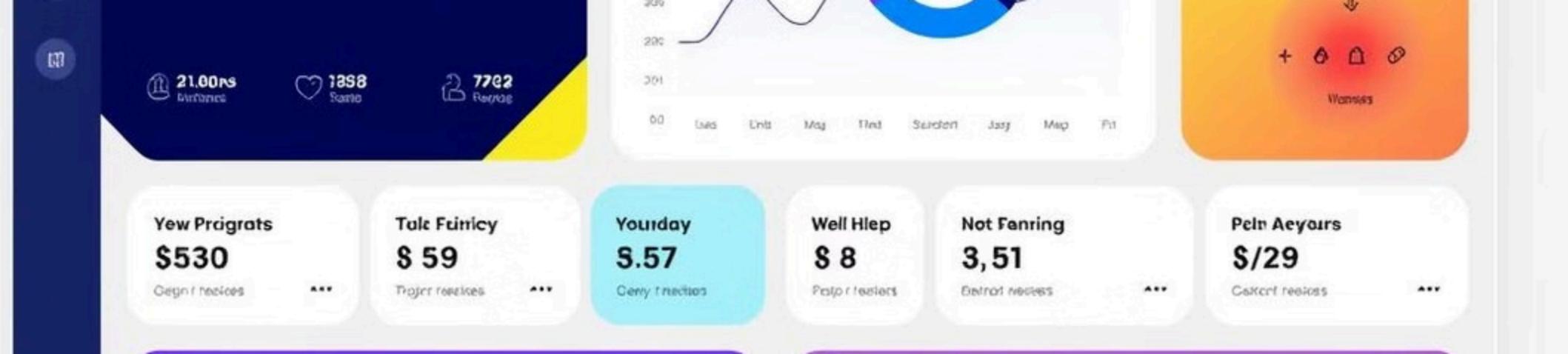
AI Powered Resume Shortlisting Tool

Streamline your hiring process with AI-powered resume shortlisting

The Problem

- Manual shortlisting is time-consuming and prone to unconscious bias.
- Existing tools utilize mainly keyword based matching and semantic matching which can fail to capture nuances and depths.





Our Solution

Resume Parser

Extracts key data from resumes

Portfolio and Trajectory Analysis

Evaluates candidate's GitHub repositories
Assesses career and progression patterns

Compatibility Scoring

Bipartite graph representation with edges representing compatibility scores optimized by GNN

Candidate-Job Match

leveraging quantum algorithms to solve combinatorial optimization problem of candidate job matching efficiently, as the input becomes larger

Workflow Architecture





Key Advantages

1 Automation & Scalability

Streamline large-scale resume processing

3 Touch of AI

capture nuances better

2 Modular Design

Easy integration with existing systems

4 Quantum Optimization

Handling job assignment for large datasets

Results Snaps

Parser:

```
skills = ['python', 'java', 'machine learning', 'data science', 'sql', 'pandas', 'numpy']
# Example usage
filepath = "./resumes/resume_gnaneshwar.pdf"
resume_info = parse_resume(filepath)
print(f"Extracted information from resume: {resume_info}")

Extracted text from PDF: ./resumes/resume_gnaneshwar.pdf
Extracted information from resume: {'name': 'gg', 'skills': {'python', 'sql', 'data science', 'java', 'machine learning'}, 'experience': [], 'email': [], 'phone_number': None}

skills = ['python', 'java', 'machine learning', 'data science', 'sql', 'pandas', 'numpy', 'deep learning', 'computer vision', 'NLP']
# Example usage
filepath = "./resumes/resume_bhavik.pdf"
resume_info = parse_resume(filepath)
print(f"Extracted information from resume: {resume_info}")

Extracted text from PDF: ./resumes/resume_bhavik.pdf
Extracted information from resume: {'name': 'bhavik', 'skills': {'data science', 'deep learning', 'machine learning', 'python'}, 'experience': [], 'email': ['bhavikoswal2004@gmail.com'], 'phone_number': ['+91 6360397775']}
```

Portfolio Analysis:

GitHub User Features:

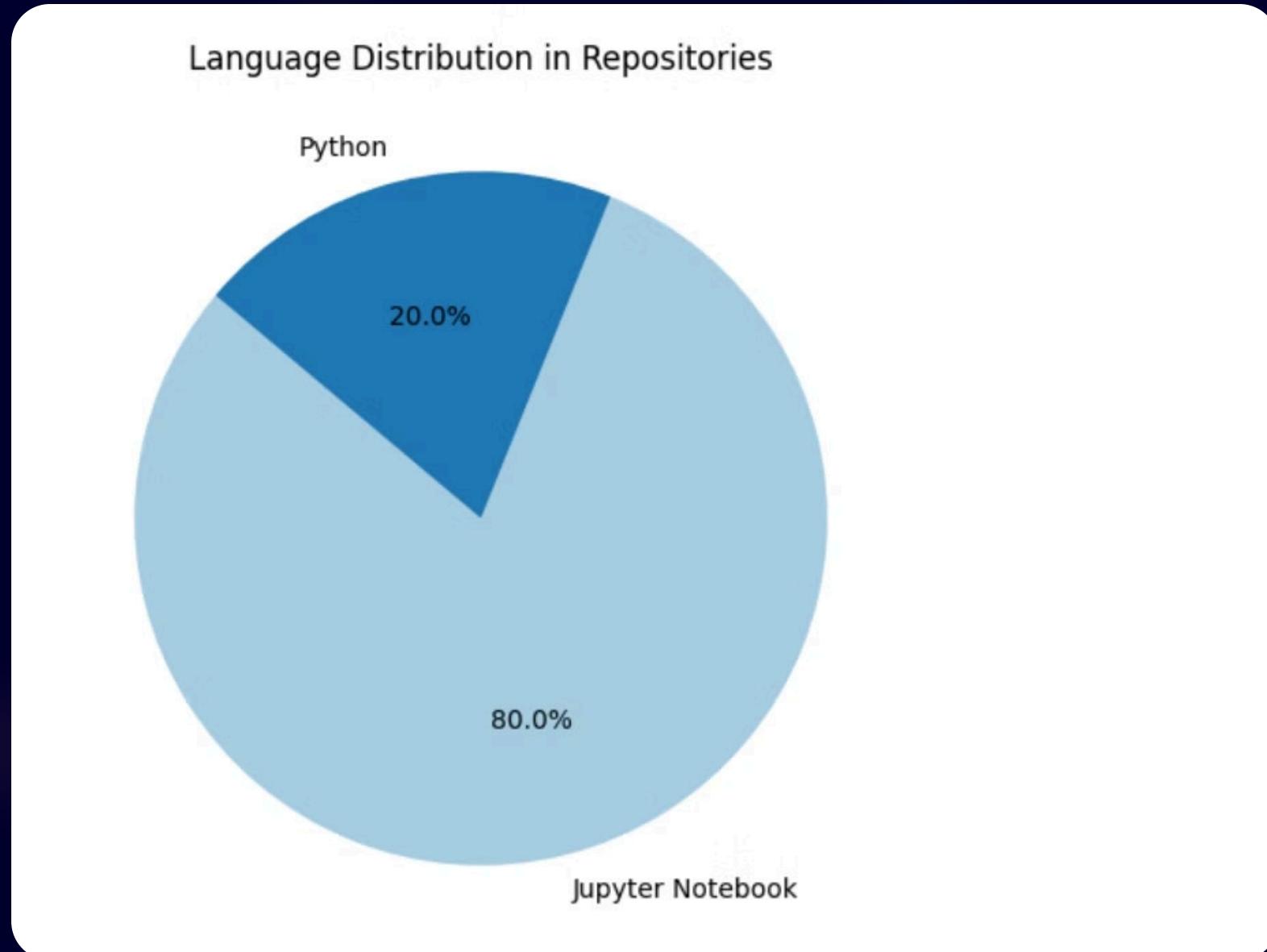
Username: saikruthikreddy
Name: saikruthik
Bio: None
Location: None
Public_repos_count: 5
Followers: 0
Following: 0

Highlighted Projects/Repositories:

Repo Name: Codesoft
Description: No description available
Stars: 0
Forks: 0
Primary Language: Jupyter Notebook
Created At: 2024-12-03T14:18:07Z
Last Updated At: 2024-12-03T14:48:35Z
URL: <https://github.com/saikruthikreddy/Codesoft>

Repo Name: custom_task_manager
Description: Developed a Windows-based application using Python and Tkinter to monitor CPU, memory, and active processes in real-time. Features include resource usage alerts, application tracking, dynamic graphs with Matplotlib, and light/dark theme toggling. Packaged as a standalone executable using PyInstaller.
Stars: 0
Forks: 0
Primary Language: Python
Created At: 2024-11-19T11:56:10Z
Last Updated At: 2024-11-19T11:59:20Z
URL: https://github.com/saikruthikreddy/custom_task_manager

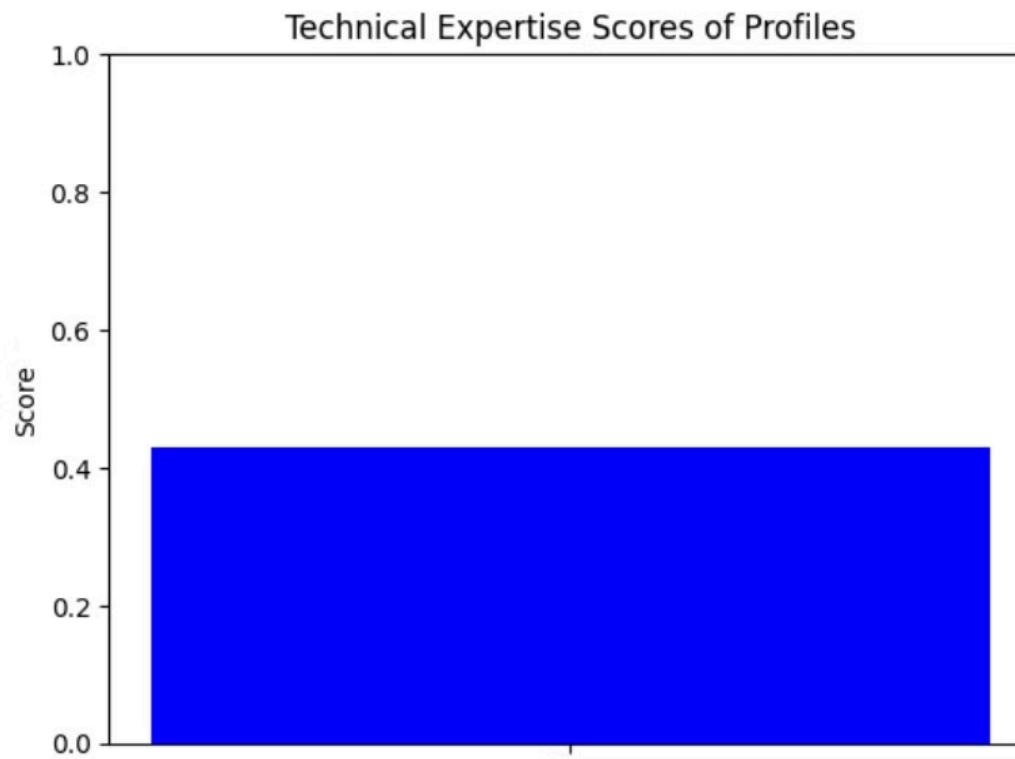
Portfolio Analysis:



Portfolio Analysis:

Stars: 0
Forks: 0
Language: Jupyter Notebook
Description: None
[URL: https://github.com/saikruthikreddy/loan-prediction-system-for-banks](https://github.com/saikruthikreddy/loan-prediction-system-for-banks)

Repo Name: second-hand-car-sales-prediction
Stars: 0
Forks: 0
Language: Jupyter Notebook
Description: None
[URL: https://github.com/saikruthikreddy/second-hand-car-sales-prediction](https://github.com/saikruthikreddy/second-hand-car-sales-prediction)

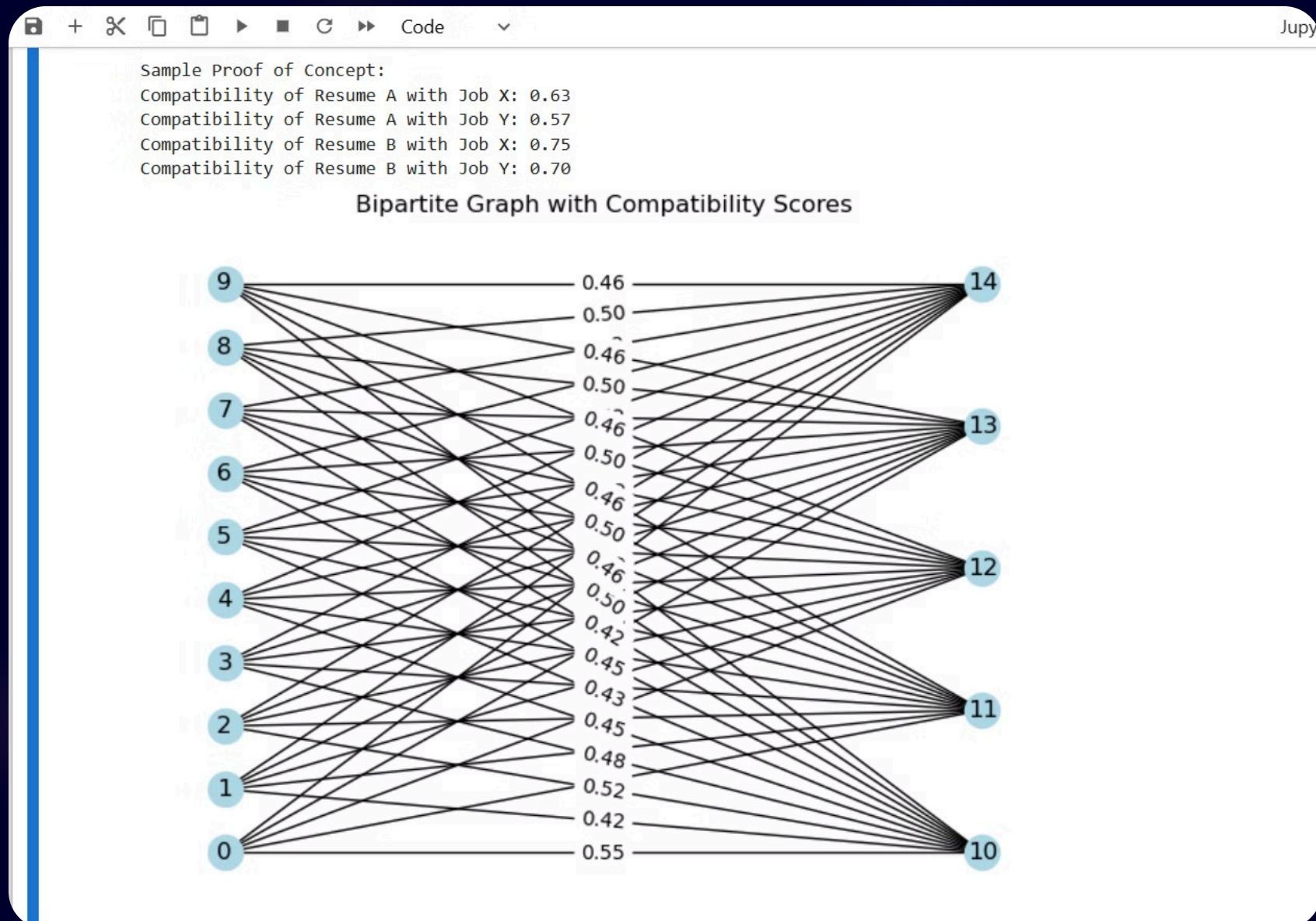


Career Trajectory:

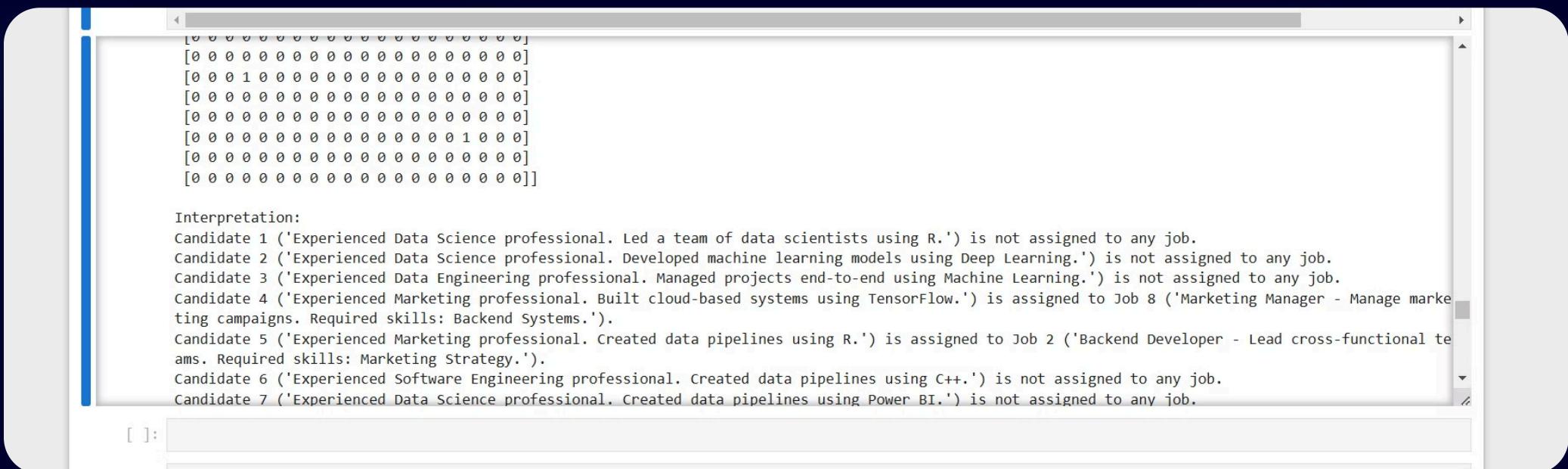
Career Growth Predictions for All Candidates:

candidate_id	job_titles	years_of_experience	num_promotions	years_of_experience.1	num_promotions.1	career_growth	predicted_growth
1	Senior Developer	7	2	0.539692	0.880468	1	2.577581
2	Engineer	4	4	0.586751	0.624354	4	3.922899
3	Software Engineer	13	2	0.965255	0.295634	4	3.365240
4	Software Engineer	11	4	0.607034	0.105494	3	2.670012
5	Lead Engineer	8	0	0.275999	0.456535	1	3.250613
6	Engineer	13	1	0.296274	0.218440	3	3.692135
7	Junior Developer	5	3	0.165267	0.416510	1	2.599555
8	Engineer	7	0	0.015636	0.883280	5	3.298984
9	Lead Engineer	10	3	0.423401	0.324345	2	2.611289
10	Lead Engineer	3	5	0.394882	0.122088	2	3.437201
11	Engineer	7	1	0.293488	0.356298	2	2.559221
12	Lead Engineer	11	1	0.014080	0.906828	3	3.603824
13	Engineer	11	0	0.198842	0.272132	5	3.752057
14	Senior Developer	8	1	0.711342	0.647690	1	2.967987
15	Engineer	5	4	0.790176	0.000520	4	3.300077
16	Engineer	4	1	0.605960	0.352569	1	2.742945
17	Lead Engineer	8	3	0.926301	0.304781	4	2.471737
18	Lead Engineer	8	3	0.651077	0.164656	1	2.334647
19	Software Engineer	3	3	0.914960	0.534089	5	4.048531
20	Software Engineer	6	3	0.850039	0.484830	4	2.786447
21	Senior Developer	5	4	0.449451	0.692436	3	3.425357
22	Software Engineer	2	2	0.095410	0.269412	1	3.459899
23	Engineer	8	5	0.370818	0.244126	1	2.593836
24	Lead Engineer	12	0	0.668841	0.168291	4	3.944133
25	Software Engineer	14	3	0.665922	0.218764	3	3.159579
26	Software Engineer	6	1	0.591298	0.558102	3	2.596423
27	Senior Developer	2	3	0.274722	0.403836	5	3.850422
28	Senior Developer	12	1	0.561243	0.064892	3	3.442664
29	Engineer	5	5	0.382927	0.253915	3	3.531232
30	Lead Engineer	1	5	0.971712	0.246876	3	3.611487
31	Senior Developer	12	5	0.848914	0.696304	2	3.074556
32	Software Engineer	10	1	0.721730	0.712271	5	3.372641
33	Lead Engineer	6	3	0.235985	0.148087	1	2.233440
34	Lead Engineer	13	5	0.256068	0.997740	4	3.309047
35	Software Engineer	12	4	0.040434	0.266781	1	2.852067

GNN Module:



Quantum Module:



The screenshot shows a terminal window with a dark background and light-colored text. It displays a 2D array of binary values representing candidate assignments to jobs. Below the array, an interpretation is provided for each candidate based on their skills and job requirements.

```
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]
[0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0]
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0]
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]]
```

Interpretation:

- Candidate 1 ('Experienced Data Science professional. Led a team of data scientists using R.') is not assigned to any job.
- Candidate 2 ('Experienced Data Science professional. Developed machine learning models using Deep Learning.') is not assigned to any job.
- Candidate 3 ('Experienced Data Engineering professional. Managed projects end-to-end using Machine Learning.') is not assigned to any job.
- Candidate 4 ('Experienced Marketing professional. Built cloud-based systems using TensorFlow.') is assigned to Job 8 ('Marketing Manager - Manage marketing campaigns. Required skills: Backend Systems.').
- Candidate 5 ('Experienced Marketing professional. Created data pipelines using R.') is assigned to Job 2 ('Backend Developer - Lead cross-functional teams. Required skills: Marketing Strategy.').
- Candidate 6 ('Experienced Software Engineering professional. Created data pipelines using C++.') is not assigned to any job.
- Candidate 7 ('Experienced Data Science professional. Created data pipelines using Power BI.') is not assigned to any job.

[]:

Feedback:

```
synthetic_job_description = """
We are seeking a Data Scientist with a strong background in machine learning, NLP, and deep learning. Must be proficient in Python, Scikit-learn, TensorFlow, PyTorch, and Pandas. Experience with Big Data frameworks like Apache Spark is a plus.

"""

```

```
evaluator = ResumeJobEvaluator()
evaluator.provide_feedback(synthetic_resume, synthetic_job_description)
```

Similarity Score: 0.8069

Good Match, but some improvements could be made:

- Focus on aligning your work experience more closely with the job role requirements.

```
: synthetic_resume = """
Marketing Specialist with experience in content creation, digital marketing, and SEO. Proficient in tools like Google Analytics, Adobe Creative Suite, and
"""

"""

```

```
synthetic_job_description = """
We are seeking a Data Scientist with a strong background in machine learning, NLP, and deep learning. Must be proficient in Python, Scikit-learn, TensorFlow, PyTorch, and Pandas. Experience with Big Data frameworks like Apache Spark is a plus.

"""

```

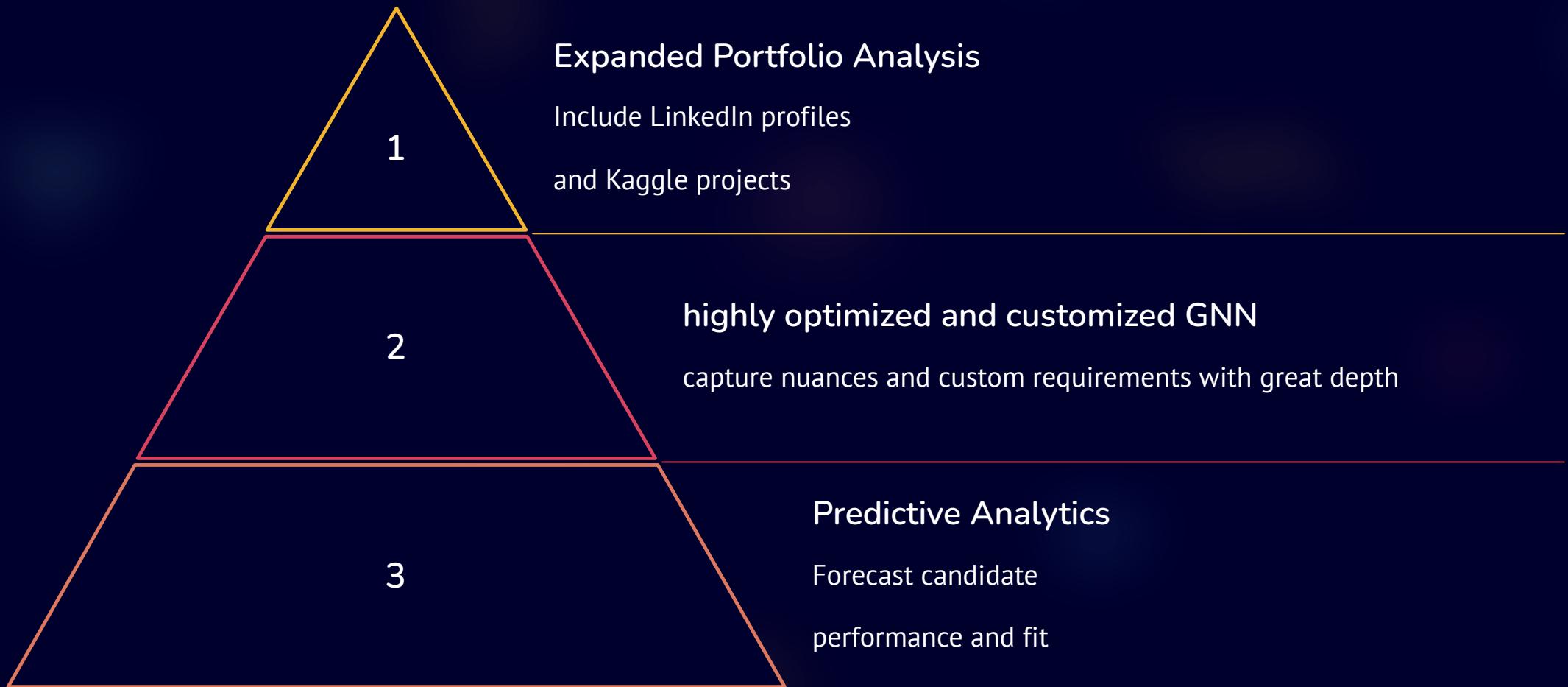
```
evaluator = ResumeJobEvaluator()
evaluator.provide_feedback(synthetic_resume, synthetic_job_description)
```

Similarity Score: 0.5333

Feedback for Improvement:

- Your experience may not closely match the job description.
- Highlight more relevant skills and experiences.

Future Potential



Let's Talk

We're ready to discuss how this tool can transform your hiring process

