Feasibility Study:

Technical Feasibility

- **Strong NLP Libraries:** Libraries like spaCy, NLTK, RE, Gensim offer powerful tools for tokenization, stemming/lemmatization, POS tagging, NER, and text processing that are critical for resume analysis.
- **DCN Model Potential:** DCN's ability to learn complex feature interactions might outperform simpler keyword-matching approaches for identifying relevant candidates based on job descriptions.
- **Computational Resource Considerations:** Training and running NLP and DCN models can be computationally expensive. While Google Colab's free GPUs provide a starting point, consider scaling to cloud resources (AWS, GCP, Azure) for larger datasets or heavy use.

Operational Feasibility

- **User Interface:** A user-friendly interface for recruiters and job seekers with minimal technical knowledge for smooth adoption.
- **Maintenance Needs:** Regular updates to DCN model by transfer learning techniques in CI/CD fashion, as the project aims to improve the scope of jobs it can rank(https://ijirase.com/assets/paper/issue_1/volume_3/V3-Issue-2-458-465.pdf)

Economic Feasibility

- **Development Costs:** The project can be developed using cost-effective Personal Computers.
- **Potential Savings:** The system can save recruiters time and resources by automating initial candidate screening and identifying qualified applicants.
- **Improved Hiring Efficiency:** Faster and more efficient hiring processes can lead to cost savings and a competitive edge in talent acquisition.

Schedule Feasibility

Team with good learning capacity and understanding of the project ensures the completion of a ready product in 11 months.