







Smart Job Match AI – Resume and Job Skill Analyzer (CLI Tool)

A command-line AI tool that analyzes resumes, compares them against job descriptions, identifies skill gaps, and recommends personalized learning paths. Built for AI/ML learners preparing for job roles like NLP Engineer, ML Engineer, or Prompt Engineer.

Features

-  Resume parsing from PDF/DOCX
-  Job description parsing from CSV or text
-  Semantic skill matching using SBERT (sentence-transformers)
-  Skill gap detection with learning recommendations (Coursera/GitHub)
-  Optional GPT-based career prompt generator
-  CLI output in Markdown, JSON, CSV formats

Project Structure

smartjobmatch_ai/ |—— main.py # CLI entry point |—— parsers/ # Resume & job description loaders |—— matching/ # Embedding and skill comparison logic |—— recommender/ # Skill gap and learning suggestions |—— prompts/ # GPT-based career advisor (optional) |—— reports/ # Markdown / JSON / CSV report generators |—— tests/ # Unit tests |—— requirements.txt # Python dependencies

Skills You'll Learn (By Building or Using It)

- Python (file handling, modular CLI development)
- Natural Language Processing (spaCy, regex, NER)
- Semantic embeddings (BERT, SBERT)
- Cosine similarity for job matching
- Prompt engineering for GPT
- Report formatting for technical analysis

Installation

open docs/setupguide.md # macOS *xdg-open docs/setupguide.md* # Linux notepad docs/setupguide.md # Windows *code docs/setupguide.md* # VS Code