XPLORA INNOVATHON 2026

TITLE SLIDE

Idea Title : Smart Career Advisor
Team Name : Code Crafters
University / Organisation / College Name : Centurion University of Technology and Management , BBSR
Domain : AI/ML
Idea Category: Software

PROBLEM STATEMENT

- Career guidance is fragmented across multiple platforms, making it difficult for individuals to choose the right career path based on skills, resumes, and interests.
- Students, fresh graduates, job seekers, recruiters, and career guidance services are affected by inefficient job matching and resume shortlisting.
- Incorrect career decisions and resume mismatches contribute to unemployment and reduce interview success rates.
- Existing systems lack an integrated AI-based platform for career prediction, resume evaluation, real-time guidance, and career progress tracking.

PROPOSED SOLUTION

- An AI-powered smart career guidance platform that integrates career prediction, job matching, resume analysis, and career preparation into a single unified system.
- User data such as skills, interests, and resumes are analyzed using multiple machine learning models and NLP techniques to generate personalized career recommendations and insights.
- Provides centralized, data-driven career guidance, reduces resume–job mismatch, automates assistance through AI chatbots and call-center support, and offers structured preparation and career roadmaps.

Key Features of the Solution:

✓ AI-based career prediction using 5 machine learning models
✓ Resume-to-job description comparison and optimization
✓ AI chatbot and call-center-style real-time guidance
✓ Integrated modules: Dashboard, Job Finder, Resume Builder, Code Editor
✓ Career Roadmap, Success Roadmap, and Job Preparation tools

WORKFLOW & IMPLEMENTATION

- Frontend collects user inputs (skills, resume, preferences, timelines) and sends them to the backend, where ML models, an LLM-based chatbot, and a retail-API call agent process career fit, role suitability, domain alignment, and ATS resume gaps
- Backend generates real-time outputs such as career predictions, ATS-optimized resume insights, top role/domain suggestions, and time-aware preparation guidance, which are displayed through an interactive dashboard

Technology Stack:

- Programming languages: Python, JavaScript
- Tools / frameworks: FastAPI, Machine Learning models, NLP, LLM integration, HTML/CSS/React(frontend)
- APIs: Retail Call Agent API, LLM API, Cloud-based deployment services
- Implementation approach: Working Model (functional prototype with real-time predictions and guidance)

INNOVATION & FEASIBILITY

- Unified AI platform combining career prediction, ATS-optimized resume analysis, LLM-based chatbot guidance, retail-API call agent support, and time-aware preparation roadmaps in a single system
- **Feasibility analysis:**
  - **Technical:** Uses proven ML models, LLM APIs, FastAPI backend, and cloud deployment
  - **Operational:** Fully automated guidance reduces dependency on human counselors and call centers
  - **Scalability:** Cloud-based APIs and modular architecture support large-scale user growth
- **Potential challenges and risks:**
  - Accuracy and bias in ML/LLM predictions
  - API cost, latency, and dependency on third-party services
  - Data privacy and secure handling of user resumes
- **Strategies to overcome these challenges:**
  - Continuous model evaluation, feedback loops, and dataset updates
  - Caching, API optimization, and fallback mechanisms
  - Secure data storage, encryption, and compliance with privacy standards

IMPACT & BENEFITS

- Improves career decision-making accuracy through AI-driven predictions, resume analysis, and personalized guidance
- Students, fresh graduates, job seekers, recruiters, career counselors, and training institutions
- Reduces unemployment risk and skill mismatch, automates career guidance using AI, and lowers recruitment and counseling costs
- Scalable cloud-based architecture with extensible ML and LLM modules enables expansion across industries, roles, and global job markets

RESEARCH & REFERENCES

Existing products or platforms studied:

- LinkedIn Job Matching and Resume Insights
- Indeed and Glassdoor job recommendation systems
- AI-based resume screening and career guidance platforms

Datasets / standards / tools referenced:

- Publicly available career, resume, and job description datasets
- Standard ML libraries and frameworks for classification and recommendation
- NLP and LLM tools for resume parsing and chatbot-based guidance

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IMPORTANT INSTRUCTIONS

Please ensure the following while submitting the Idea PPT:

1. Maximum slide limit: **Seven (7) slides only (including Title Slide)**
2. Avoid paragraphs; use **points, diagrams, infographics, and images**
3. Keep explanations **clear, concise, and easy to understand**
4. Idea must be **unique and novel**
5. Use **only the provided template** without modifying headings or structure
6. Save and upload the file **only in PDF format**
   (No PPT / Word / other formats will be accepted)