

NEET AI Performance Analyzer

Overview

The **NEET AI Performance Analyzer** is a Python-based GUI application that analyzes a student's performance in NEET preparation quizzes. It fetches quiz data from APIs, evaluates the student's strengths and weaknesses, predicts their NEET rank, and provides AI-generated study recommendations.

Features

- **Performance Analysis:** Analyzes quiz results to determine accuracy and weak topics.
- **NEET Rank Prediction:** Estimates the student's rank based on quiz scores.
- **Personalized AI Recommendations:** Provides study suggestions tailored to the student's performance.
- **Student Persona Analysis:** Identifies strong and weak areas with motivational feedback.
- **Modern GUI:** Uses CustomTkinter for a sleek, user-friendly interface with a dark theme.
- **Adjustable Textbox:** Scrollable and resizable results display with enhanced readability.

Installation

Prerequisites

Ensure you have Python installed (≥ 3.7) along with the required libraries.

Required Python Libraries

Run the following command to install dependencies:

```
pip install requests openai customtkinter
```

API Configuration

Replace the `openai.api_key` in the script with your actual OpenAI API key:

```
openai.api_key = "your-api-key"
```

Usage

1. **Run the script:**
2. `python script.py`
3. **Click "Analyze Performance"** to fetch quiz data and get AI-generated insights.
4. **View Results:**
 - **Student Persona:** Strengths, weaknesses, and motivation.
 - **Predicted NEET Rank:** Estimated based on quiz performance.
 - **Study Recommendations:** Topic-specific suggestions for improvement.

Code Breakdown

1. Data Fetching

The script retrieves quiz data from APIs using the `fetch_data()` function.

2. Performance Analysis

The `analyze_performance()` function evaluates quiz accuracy and topic-wise performance.

3. NEET Rank Prediction

The `predict_neet_rank()` function estimates the student's rank using statistical modeling.

4. AI-Generated Recommendations

The `generate_recommendations()` function uses OpenAI's GPT-4 model to suggest study plans.

5. GUI Implementation

- **CustomTkinter** is used for an elegant dark-themed interface.
- **ScrolledText** provides an adjustable text area for displaying results.
- **Formatted output** includes bold text and colored highlights for key insights.

Future Enhancements

- **Graphical Analysis:** Add charts for better visualization of performance.
- **Export Feature:** Save recommendations as a PDF or CSV.
- **Real-time Quiz Integration:** Connect with live quizzes for dynamic analysis.

THANK YOU