Chess Trainer App

User Manual

Overview

- Mobile app for **Android** and **iOS**.
- Provides chess board visualization and engine analysis.
- Powered by **Stockfish** and **Motif detection**.
- Designed for training and learning chess positions.

Platform

- Android or iOS device or emulator is needed
- Android Studio is Recommended

Input Options

FEN (Recommended)

- Enter a **FEN string** to display a position.
- Correct FEN formatting is **required**.
- Example:

  ```
  rnbqkbnr/pppppppp/8/8/8/8/PPPPPPPP/RNBQKBNR w KQkq - 0 1
  ```

> ⚠️ Without proper FEN, the app cannot analyze or display positions.

PGN (Currently Disabled)

- Loading full **PGN games** is not available in this version.
- PGN support may be added in future releases.

Navigating Positions

- Use the **forward** and **backward arrows** to move between positions (if multiple FENs are provided).
- Current position indicator: `1 / N` (shows your place in the sequence).

Engine Analysis

- Stockfish evaluates each position.
- Displays **PV lines** (principal variations) with depth and evaluation.
- Example:

Motif Detection

- Shows key **pawn structures** and **endgame types**.
- Example output for a position:
- Pawn Islands (W/B): 1 / 1
- Queenside Majority (W/B): false / true
- Pawn Structure (White): iso 0, dbl 0, tri 0
- Pawn Structure (Black): iso 0, dbl 1, tri 0
- Endgame Type: none

Important Notes

- Only **single FEN inputs** are fully functional.
- Ensure **FEN strings are valid**; otherwise, analysis will fail.
- PGN functionality is currently **disabled**.
- App is optimized for mobile usage — orientation locked to **portrait**.

Contact & Support

For questions or issues:

- Email: carpenterd5@nku.edu
- Documentation: Chess Trainer Docs

Thank You

- Enjoy learning chess efficiently!
- Stockfish + Motif detection = smarter training.