# Moonshot

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## Project Overview

An intelligent automation tool for real-time betting decisions in multiplier-based games.

Uses machine learning and OCR to analyze game state and maximize profitability.

### Front-End Capabilities

Real-time screen capture & OCR (using pyautogui, pytesseract, OpenCV).

Automated UI interactions: placing bets, typing amounts, ejecting from rounds.

Real-time multiplier detection & logging for analytics (crash\_times.txt).

#### Machine Learning Core

LSTM-based neural network model predicts crash multipliers (PyTorch).

Reinforcement Learning (Q-table) dynamically selects optimal bet amounts & ejection points.

Real-time adaptive decision-making based on past game outcomes and player behaviors.

#### **Automation Workflow**

Main loop manages betting cycle, balance tracking, and bet placements.

Integrated error handling and responsive adjustment based on live game conditions.

Enhanced betting strategies adapt during winning or losing streaks for optimal risk management.

#### Results & Lessons Learned

Despite advanced modeling and robust implementation, consistent prediction of random events proved unreliable.

Practical experiments showed that the bot was not profitable in the long run due to inherent randomness and volatility.

Conclusion: Perfectly predicting inherently random events like crash multipliers is impossible, underscoring the limitations of machine learning in gambling scenarios.