



Enhancing Android Security Through Tracking Permissions Tracking and Risk Scoring

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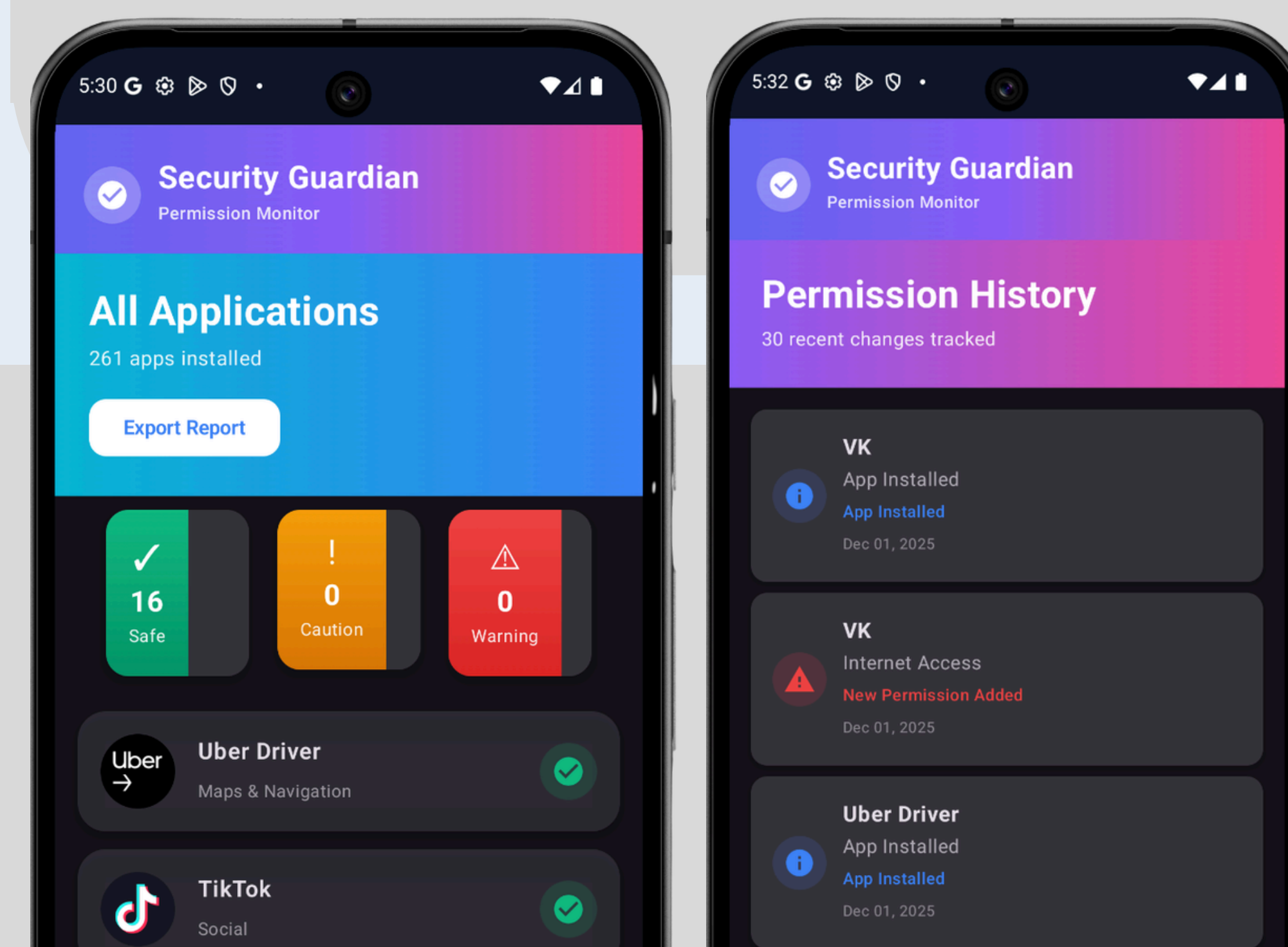


INTRODUCTION

- Android apps often request excessive permissions
- Users grant access without understanding the risks
- This can lead to privacy exposure
- Need for user-focused security tools

APP OVERVIEW

- Scans app permissions
- Assigns ML + heuristic risk scores
- Tracks permission changes over time



METHODOLOGY

- Dataset: 18,000+ Android apps
- Features; permissions, category, usage
- Lightweight PyTorch model
- Heuristic scoring system

RESULTS

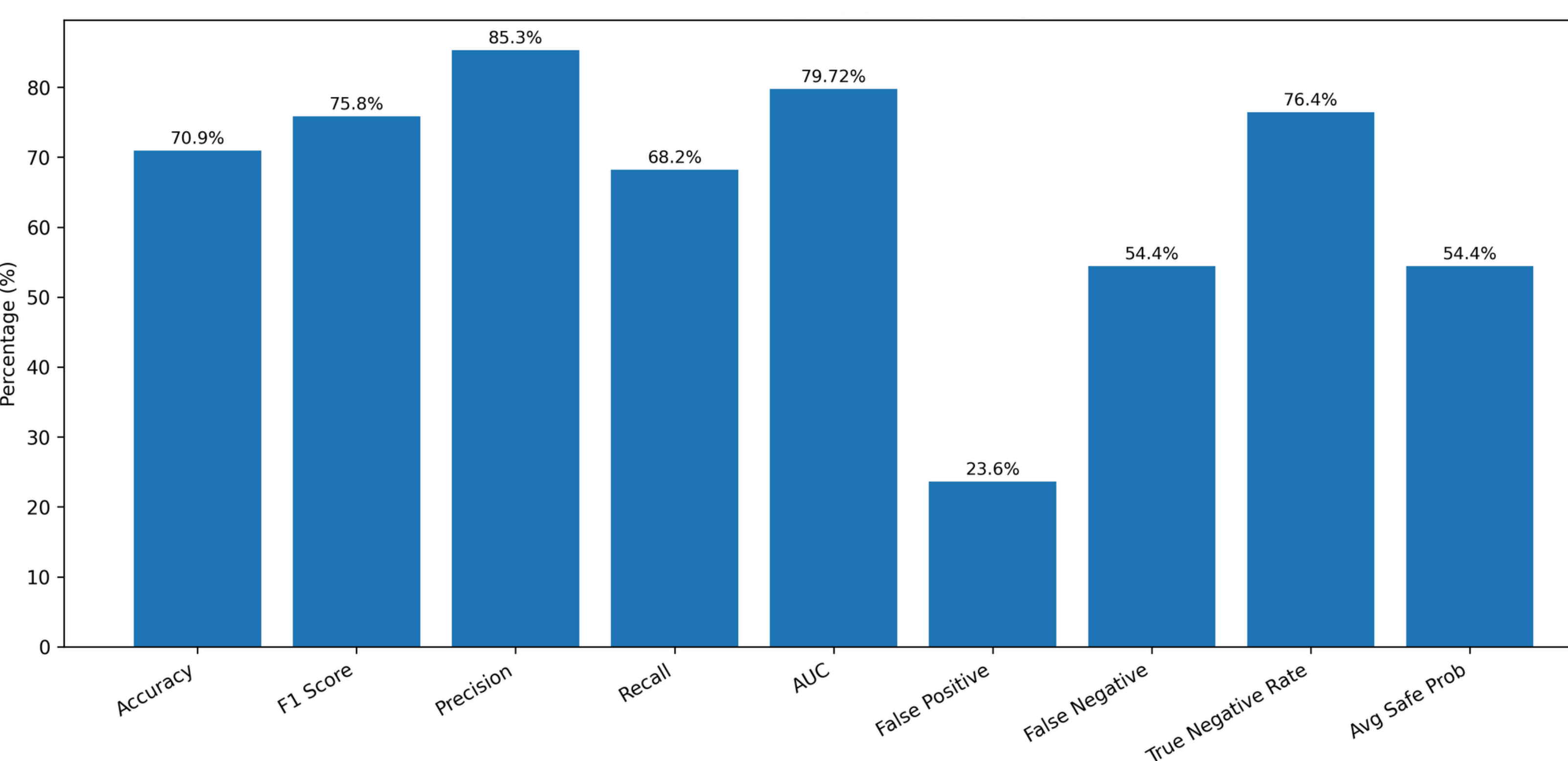
- 55.7% High risk
- 29.7% Moderate
- 14.6% Benign
- 68.2% Recall
- 79.7% AUC

UI AND LAYOUT

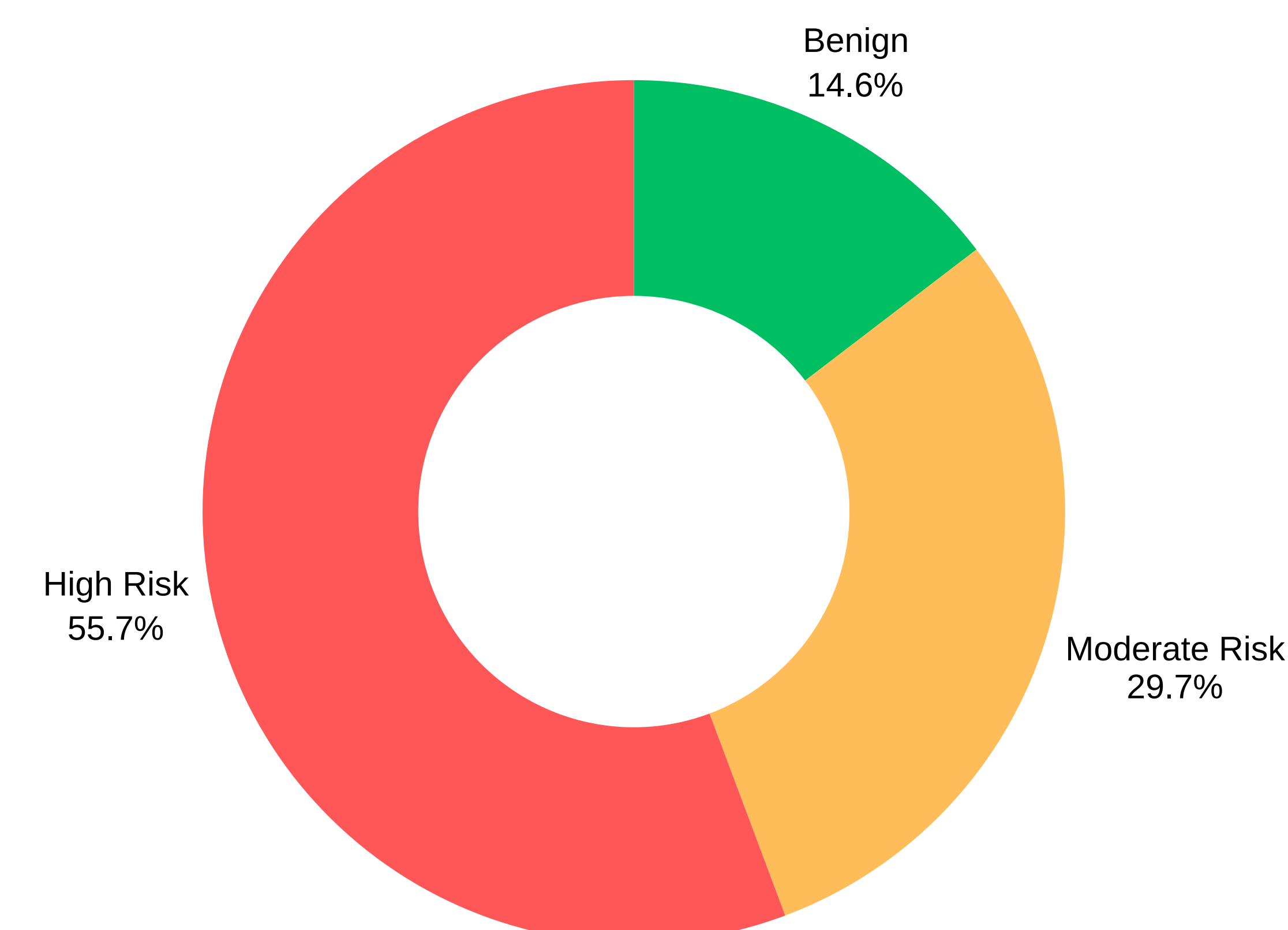
- User-friendly
- Visually appealing
- Form & Function

STATISTICS

MODEL PERFORMANCE METRICS



RISK DISTRIBUTION



CONCLUSION

- Help improve awareness of user
- Use of both ML and manual heuristics creates a practical and precise solution
- Shows that many apps these days are invasive of privacy