ANDROID MALWARE DETECTION USING MACHINE LEARNING

Project III (IT208PPC31) report submitted to

Guru Ghasidas Vishwavidyalaya

in partial fulfillment for the award of the degree of

Bachelor of Technology

in Information Technology

by

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Under the supervision of

Mrs. AKANKSHA GUPTA

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Bilaspur, C.G.-495009

December 15, 2024

April 3, 2025

DEPARTMENT OF INFORMATION TECHNOLOGY
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CERTIFICATE

This is to certify that the project report entitled "**ANDROID MALWARE DETECTION BY USING MACHINE LEARNING**" submitted by, **KUNDAN YADAV (21036131), PRASHANT KISHOR AZAD (21036138)** to Guru Ghasidas Vishwavidyalaya towards partial fulfillment of requirements for the award of degree of Bachelor of Technology in Information Tech- Technology is a record of bonafide work carried out by him under my supervision and guidance during APRIL, 3, 2025

Dr. Manoj Kumar
Head of Department
Department of Information Technology
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Date: 3 April, 2025

Mrs. Akanksha Gupta
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Abstract

Name of the students:
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submitted at : Bachelor of Technology , Department of Information Technology
Project Title: "ANDROID MALWARE DETECTION BY USING MACHINE LEARNING"
Project supervisor: Mrs. AKANKSHA GUPTA
Project submission Date: 3 APRIL, 2025

Under this project we have developed a product recommendation system, With the increasing use of Android devices, malware attacks have become a significant security concern. Traditional signature-based detection methods are often ineffective against evolving threats. This project explores the application of **Machine Learning (ML)** techniques for Android malware detection. By analyzing **permissions, API calls, intents, and network behavior**, the ML model classifies apps as **benign or malicious.** The project utilizes datasets such as **Drebin** and applies classifiers like **Random Forest, SVM, and Neural Networks.** The results indicate that ML significantly enhances detection accuracy compared to conventional techniques. This report presents the **methodology,** dataset preprocessing, feature extraction, model evaluation, and performance comparison of different algorithms. The proposed system aims to improve Android security by providing **efficient and real-time malware detection.**