A Performance-Sensitive Malware Detection System Using Deep Learning on Mobile Devices

A PROJECT REPORT

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BONAFIDE CERTIFICATE

Certified that this project report "**A Performance-Sensitive Malware Detection System Using Deep Learning on Mobile Devices**" is the bonafide work of "**E.ARUNKUMAR, R.BABU, S.HARIHARAN, K.KESAVAN**" who carried out the project work under my supervision.

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INTERNAL EXAMINER

EXTERNAL EXAMINER

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ABSTRACT

Android has become the most standard smartphone operating system. The rapidly growing acceptance of android has resulted in significant increase in the number of malwares when compared with earlier years. There exists plenty of antimalware programs which are designed to efficiently protect the user's sensitive data in mobile systems from such attacks. Here, I have examined the different android malwares and their methods based on deep learning that are used for attacking the devices and antivirus programs that act against malwares to care for Android systems. Then, we have discuss on different deep learning based android malware detection techniques such as, Maldozer, Droid Detector, DroidDeepLearner, Deep Flow, Droid Delver and Droid Deep. We aim to implement a model based on deep learning that can automatically identify whether an android application is malware infected or not without installation.

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LIST OF ABBREVATION

DNN	-	Deep Neural Network
ANN	-	Artificial Neural Networks
GAN	-	Generative Adversarial Network
SVM	-	Support Vector Machines
KNN	-	K-Nearest Neighbors
DL	-	Deep Learning
ML	-	Machine Learning
DBN	-	Deep Belief Network
IDE	-	Integrated Development Environment
APK	-	Android Application Package
XML	-	Extensible Markup Language
CLI	-	Command-Line Interface
API	-	Application Programming Interface
DFD	-	Data Flow Diagram
UML	-	Unified Modelling Language
OMG	-	Object Management Group