Universiti Teknologi MARA

Snake Detection System using Convolutional Neural Network

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Thesis submitted in fulfilment of the requirements for Bachelor of Computer Science (Hons.)

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SUPERVISOR'S APPROVAL

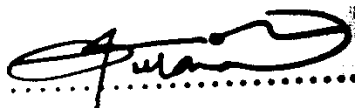**Snake Detection System using Convolutional Neural Network**

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This thesis was prepared under the direction of thesis supervisor, Mr Sulaiman bin Mahzan. It was submitted to Faculty of Computer and Mathematical Science and was accepted in partial fulfilment of the requirements for the Bachelor Of Computer Science (HONS.)

Approved by

Mr Sulaiman bin Mahzan
Thesis Supervisor

9 JULY, 2020

STUDENT DECLARATION

I certify that this report and the research to which it refers is the product of my own work and any idea or quotation from the work of other people, published or otherwise are fully acknowledge in accordance with the standard referring practices of the discipline.

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ABSTRACT

Snake known as most dangerous reptile as it threaten our live and can deal fatal wound for human. Mostly people cannot differentiate between venomous and non-venomous snake because most of non-venomous snake are likely to look like venomous one. This kind of problem can be solved using Artificial Intelligence approach. This paper aims to discuss about the project built for encountering that problems to detect and classify the snakes. Objectives of this project is to design the flow of the system, developed in Window application and test the functionality of the system and reliability for the predictive model. This project uses Convolutional Neural Network algorithms which is one the best algorithms for image processing. The algorithm is built using Tensorflow software. The development of the project is based on Waterfall methodology. Waterfall methodology consists of 6 phases starting from requirement analysis, system design, implementation, testing, deployment and maintenance. The predictive model success in detecting and classifying the snake. The model achieve 96.89 % of accuracy percentage in training set and 96% of accuracy from testing set. This project can be improved by employing in the less consumption hardware like Jetson Nano and using light sensitive camera to improve the image quality while detecting snake.

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