# Related Work

[Modelling and monitoring house fly M. domestica using remote sensing data and geographic information system - ScienceDirect](https://www.sciencedirect.com/science/article/pii/S1110982318303764)

# Dataset

Custom dataset consisting of 150 images that contain flies or no flies. Broad backgrounds including flowers, plants, colored backgrounds, wood.

# Analysis

# Implementation

The recognition of houseflies in images was implemented in Python 3 using Jupyter Notebooks with the TensorFlow and Keras libraries. A convolutional neural network was created using linear activation for all layers except the output layer which used softmax. Images were divided into two categories: with flies and without and the neural network was trained on the data. It was then tested against images not involved in training for generalization accuracy.

# Preliminary Results

The neural network was able to correctly classify the testing images.

# Project Management

## Work completed

### Description

Full implementation was completed by Jonathan Armstrong, using previous class assignments as references.

# References

Image sources: <https://pixabay.com/>

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