
FACULTY OF SCIENCE & TECHNOLOGY

BSc (Hons) [Degree Title]

May 2021

# What's Wrong With My Crop? Using Convolutional Neural Networks to Detect Crop Defects

by

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# Abstract

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The abstract for an undergraduate dissertation should be between 200 - 350 words.

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An abstract is a brief, accurate and comprehensive summary of the entire dissertation. It is the first thing to be read by your examiners to help them know the brief content of the dissertation. It also serves as a "sales pitch" to form the first impression of your work.

A good abstract should be accurate, self-contained, concise, specific and clear. A quick way to assess the quality of your abstract is to check whether it answers the questions why, how, what and so what.

Researching the efficacy of using CNN's (Convolutional neural networks to identify crop defects) and creating a suitable platform for users to interact with the network.

**It is easier to write the Abstract the last.**]

# Dissertation Declaration

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Note if your project is CONFIDENTIAL because of your client, you will need to adapt this declaration based on the agreement between you and your client accordingly. Do not forget to state the name of your client clearly. You must contact and inform Project Coordinator if your project is CONFIDENTIAL.]

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This dissertation and the project that it is based on are my own work, except where stated, in accordance with University regulations.

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# Acknowledgements

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This is your opportunity to mention individuals who have been particularly helpful. Reading the acknowledgements in the past dissertations in the project library will give you an idea of the ways in which different kinds of help have been appreciated and mentioned.]

# Contents

# List of Figures

# List of Tables

# Chapter 1 - Background and Lit Review

## 1.1 Context

the application area / industry / domain

## 1.2 Technological Aspects

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# Chapter 2 - Introduction

## 2.1 Context

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## 2.2 Problem Definition

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## 2.3 Proposed Solution

perhaps move this elsewhere? Out of the intro

## 2.4 Aims and Objectives

These should be SMART with clear success criteria defined

## 2.5 Risk Table

Find out how to format tables in LaTeX (ID, name, likelihood, impact, control mechanisms / accept)

## 2.6 Overview

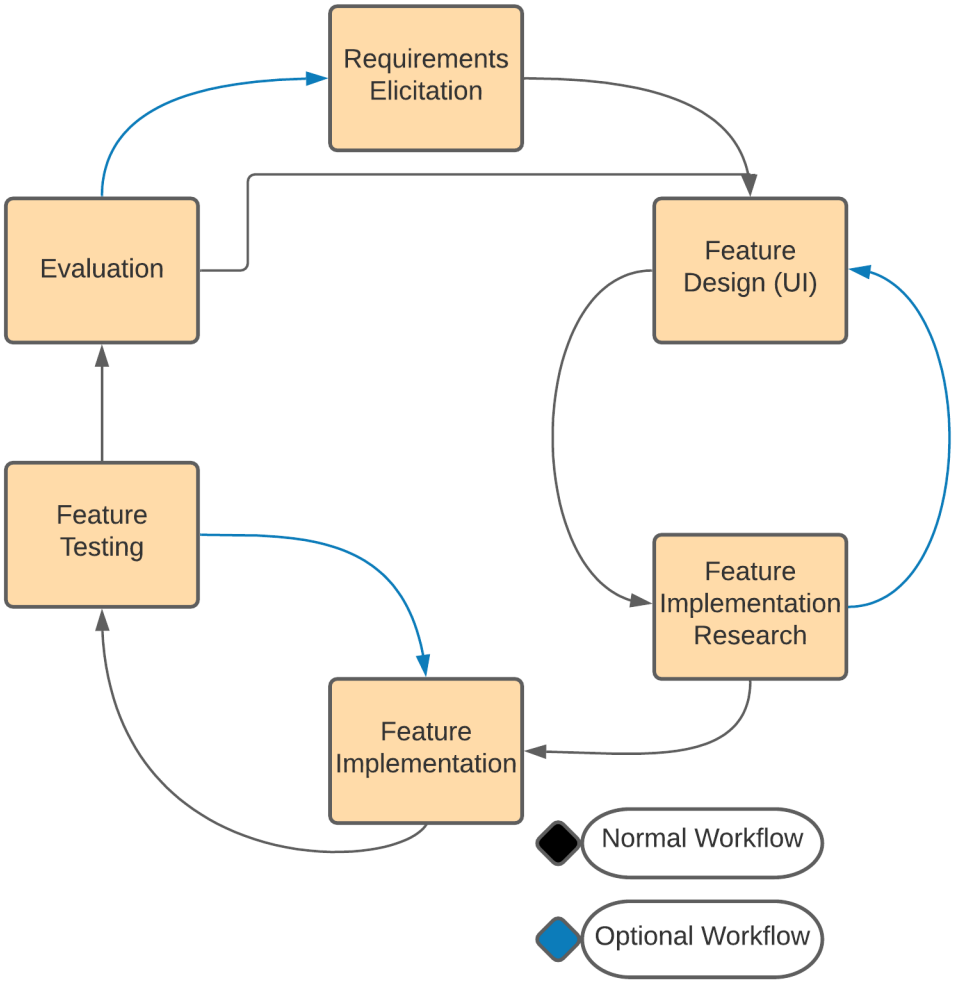
Introducing rest of dissertation (with cross references to sections)

# Chapter 3 - Methodology

## 3.1 Project management methodology

I will use an iterative, evolutionary method. This will involve:

- Requirements elicitation.
  - This involves determening the needs of the user and defining requirements to meet those ends.
- Feature design (UI).
  - Features will be designed at first using wireframe models. Then on later iterations, colour and shading will be added alongside further considerations usability such as highlight on hover etc.
- Feature implementation research.
  - This step involves determining the apropriate technologies and libraries to achieve the design. This is nececarry to realize the constraints that are imposed by the implementation method and know to what extent the design is feasible.
- Feature implementation.
  - Writing the code to create the feature.
- Feature testing.
  - Initially testing will be done manually with valid values until later iterations whereby extraneous values will be introduced. Once the feature is in it's final iterations a unit test will be introduced.
- Evaluation.
  - Does the feature meet the requirements and fulfill the needs of the user?




## 3.2 Evaluation Design

(what method(s), used how, with what and how many participants?)

## 3.3 Requirements Elicitation

How will requirements of the software be determined.

## 3.4 Feature management

e.g., kanban boards

## 3.5 Design Methods

(e.g., wireframes, DFDs, use case diagrams, class diagrams, sequence diagrams, ERDs, etc)

## 3.6 Testing methods

## 3.7 Version control

I will be using git and github

## 3.8 Evaluation methods

e.g. SUS (system usability scale)

## 3.9 Requirements

TEST TEXT

## 3.10 Desing and Implementation details

## 3.11 Justification of Implementation Choices

# Chapter 4 - Results and Discussion

## 4.1 Main Results

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## 4.2 Evaluation Results

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# Chapter 5 - Conclusion

## 5.1 Section One

a dissertation is a substantial document, it is convenient to break it up into smaller pieces. In this template we therefore give every chapter its own file. The chapters (and appendices) are gathered together in `dissertation.tex`, which is the master file describing the overall structure of the document. `dissertation.tex` starts with the line

# REFERENCES

# Appendix A - Project Proposal

# Appendix B - Ethics Checklist