

**POINT OF SALE SCANNING THROUGH YOLOV8 MULTI-OBJECT  
DETECTION IMPLEMENTATION FOR RETAIL PRODUCT  
RECOGNITION**

**THESIS**



Written by :

Alfa Aditya Wicaksana

123200094

**INFORMATICS STUDY PROGRAM  
DEPARTMENT OF INFORMATICS  
FACULTY OF INDUSTRIAL ENGINEERING  
UNIVERSITAS PEMBANGUNAN NASIONAL "VETERAN"  
YOGYAKARTA**

**2024**

# **POINT OF SALE SCANNING THROUGH YOLOV8 MULTI-OBJECT DETECTION IMPLEMENTATION FOR RETAIL PRODUCT RECOGNITION**

## **THESIS**

As a requirement to obtain a Bachelor's Degree in the Informatics Study Program,  
Department of Informatics, Faculty of Industrial Engineering, Universitas  
Pembangunan Nasional "Veteran" Yogyakarta



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## APPROVAL PAGE BY SUPERVISOR

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Written by:

Alfa Aditya Wicaksana

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Has been examined and declared passed by the supervisor

on: January 7<sup>th</sup>, 2025

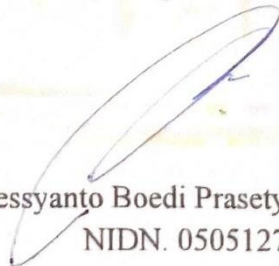
Approved by,  
Supervisor



Dr. Herlina Jayadianti, ST., MT.

NIDN. 0527087701

Acknowledged by,  
Study Program Coordinator



Dessyanto Boedi Prasetyo, S.T., M.T.

NIDN. 0505127501

## APPROVAL PAGE BY EXAMINERS

### POINT OF SALE SCANNING THROUGH YOLOV8 MULTI-OBJECT DETECTION IMPLEMENTATION FOR RETAIL PRODUCT RECOGNITION

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Approved by,

Examiner 1



Dr. Herlina Jayadianti, ST., MT.  
NIDN. 0527087701

Examiner 2



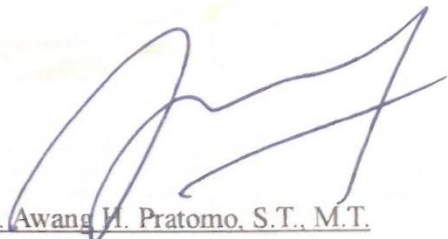
Budi Santosa, S.Si., M.T.  
NIDN. 0510097001

Examiner 3



Andiko Putro Suryotomo, S.Kom., M.Cs.  
NIDN. 0030098504

Examiner 4



Dr. Awang H. Pratomo, S.T., M.T.  
NIDN. 0025077701

## STATEMENT OF THESIS ORIGINALITY

As a student of the Informatics Study Program, Faculty of Industrial Engineering, Universitas Pembangunan Nasional "Veteran" Yogyakarta, I, the undersigned:

Name : Alfa Aditya Wicaksana

NIM : 123200094

Hereby declare that my scientific work, titled:

**Point Of Sale Scanning Through YOLOv8 Multi-Object Detection Implementation for Retail Product Recognition**

Is my original work and has never been published anywhere. If, at any time in the future, my work is found to be unoriginal, I am willing to accept any consequences imposed by the Informatics Study Program, Faculty of Industrial Engineering, Universitas Pembangunan Nasional "Veteran" Yogyakarta.

This statement is made truthfully.

Created in : Yogyakarta

Date : February 25<sup>th</sup>, 2025

Signed,



Alfa Aditya Wicaksana  
NIM. 123200094



## PLAGIARISM-FREE STATEMENT

I, the undersigned:

Name : Alfa Aditya Wicaksana  
NIM : 123200094  
Faculty/Program : Industrial Engineering/Informatics

Hereby declare that my Thesis, titled:

**Point of Sale Scanning Through YOLOv8 Multi-Object Detection Implementation for Retail Product Recognition**

Is entirely my own work and is free from plagiarism, except for excerpts and summaries whose sources (citations) have been clearly stated. If this statement is later proven to be untrue, I am willing to accept any sanctions in accordance with the Indonesian Minister of National Education Regulation No. 17 of 2010 and applicable laws and regulations.

This statement is made with full responsibility.

Yogyakarta, February 25<sup>th</sup> 2025  
Declarant,



Alfa Aditya Wicaksana  
NIM. 123200094

## PREFACE

Praise and gratitude to the Almighty God for His continuous blessings and grace, which have enabled the author to complete this thesis titled “Point of Sale Scanning Through YOLOv8 Multi-Object Detection Implementation for Retail Product Recognition.” This thesis is submitted as a requirement for completing studies in the Informatics Program, Department of Informatics, Faculty of Industrial Engineering, Universitas Pembangunan Nasional “Veteran” Yogyakarta.

Throughout the process of completing this final project, the author acknowledges that the successful completion of this thesis would have been impossible without the guidance, support, and assistance of various individuals. Therefore, the author would like to express gratitude to the following:

1. Mrs. Pipiet Damarningtyas and Mr. Mahendra Tirta, the author’s parents, for their prayers and unwavering support, both materially and non-materially, throughout the writing of this thesis.
2. Dr. Herlina Jayadianti, S.T., M.T., the thesis supervisor, for her invaluable guidance and mentorship from the beginning to the completion of this thesis.
3. Mr. Budi Santosa, S.Si., M.T. as Examiner II, Mr. Andiko Putro Suryotomo, S.Kom., M.Cs. as Examiner III, and Dr. Awang H. Pratomo, S.T., M.T. as Examiner IV, for their valuable insights and feedback in refining this thesis.
4. Mr. Simon Pulung Nugroho, S.Kom., M.Cs., as the academic advisor who has guided the author from the beginning to the end of this academic journey.
5. Mr. Bambang Haryanto and Mrs. Kusminarti, the author’s paternal grandparents, for their prayers and continuous support, both materially and non-materially, throughout the author’s entire academic journey.
6. All of the IF-H international class peers, who have accompanied the author throughout this academic journey from the beginning to the end, through all joys and hardships.
7. Other parties who cannot be mentioned one by one but have contributed their support in the completion of this thesis.

The author sincerely appreciates the time, effort, and thoughts contributed by all those who have supported the completion of this final project. The author also acknowledges that this thesis is far from perfect. Therefore, constructive criticism and suggestions from readers are highly welcomed for future improvements. Finally, it is hoped that this thesis will be beneficial both to the author and to its readers.

Yogyakarta, February 25<sup>th</sup> 2025

The Author