

# Automated Blood Cell Identification and Counting

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# Outline

## 1. Introduction

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## Why this research is important

- This research addresses the challenges in analysing blood cell in traditional methods, while offering a potential breakthrough in accuracy, efficiency, and reliability of disease diagnosis.
- The automation using advanced image processing and machine learning could revolutionize medical diagnostics, leading to improved patient outcomes.

## What we know and what we don't know

- The limitations of manual blood cell analysis, emphasizing the need for automation.
- Leverages existing methodologies and acknowledges advancements in models like YOLOv5 and YOLOX.
- The specific limitations of current approaches are unaware and how the proposed solution will overcome them in areas that the project aims to explore.

# Introduction (Cont'd)

## Our Experiment

- This experiment develops an automated system for blood cell analysis using image processing and machine learning.
- The process includes image preprocessing, feature extraction, and the implementation of machine learning models for the classification and counting of blood cells.

## Our Hypothesis

- By combining solutions in image processing and machine learning, the developed system will significantly improve the accuracy and reliability of blood cell identification and counting.
- It is expected to streamline the analysis process, reduce time and labor requirements, and enhance the diagnostic capabilities of healthcare professionals.

# Thank You

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