

Name: Omar Akl

University: Istanbul Aydin University

Email: omar.aakl@hotmail.com

Country: Lebanon

Specialization: Data Science

Problem: Tomato production is essential worldwide, but it faces yield fluctuations due to various factors, including diseases. Despite the potential benefits of automation, accurately detecting these diseases remains a challenge.

Approach: This study proposes using the YOLOv8 algorithm, a deep learning approach, for automated tomato disease detection.

Data Type: Images

Problems in Data: Images have different sizes. Also, they can be with low resolution so they become irrelevant. Some images don't show tomatoes correctly. In order to solve the above problems, images were resized and scaled into 640x640. Also, images that are irrelevant were removed by sorting the images and removing low quality images.

Code: <https://github.com/omaraki/Tomatoes-disease-detector>