

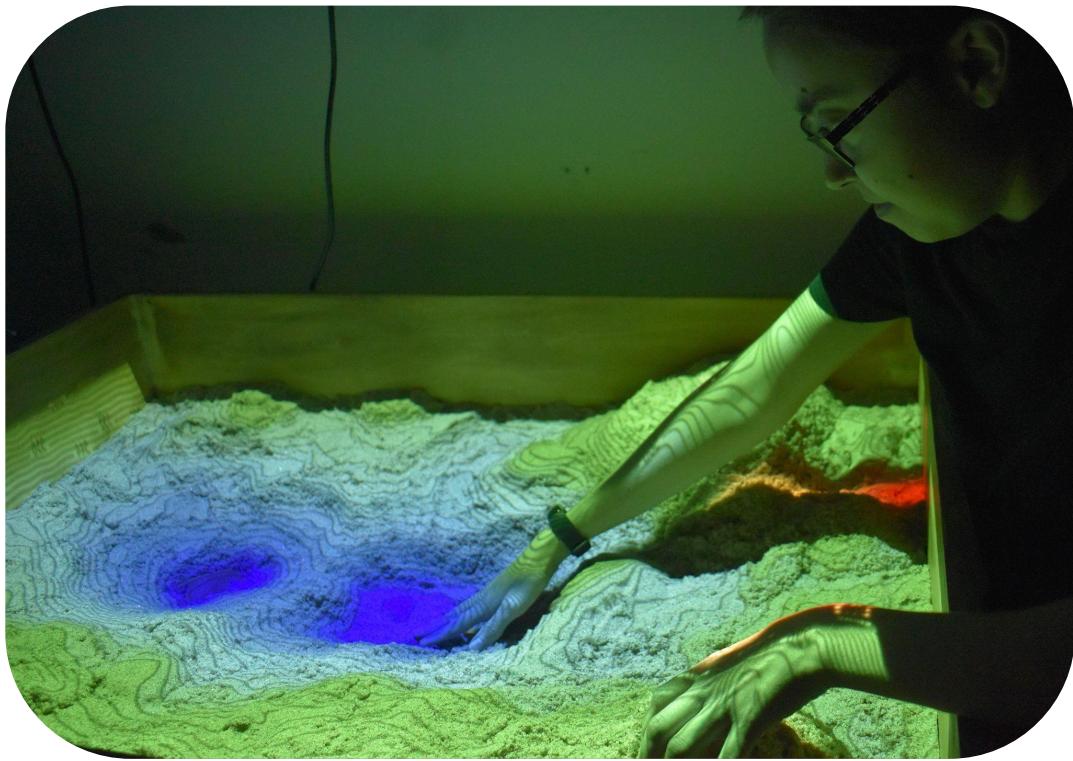
AI and Agriculture

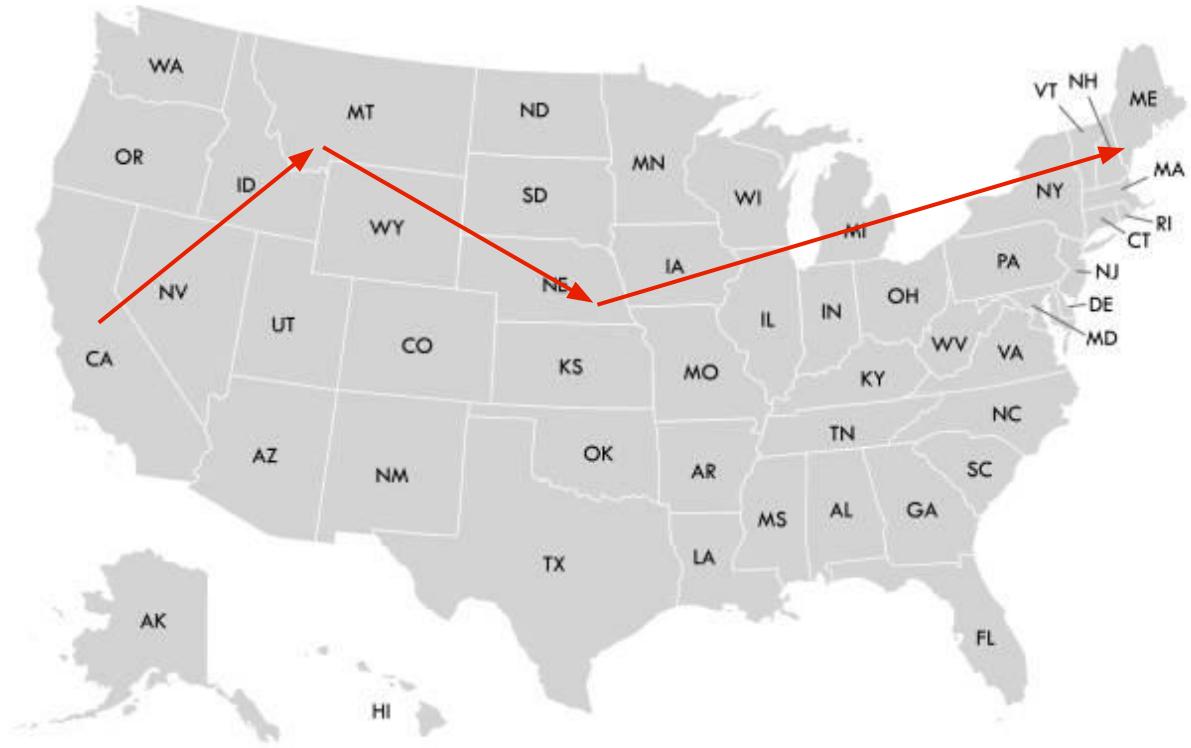


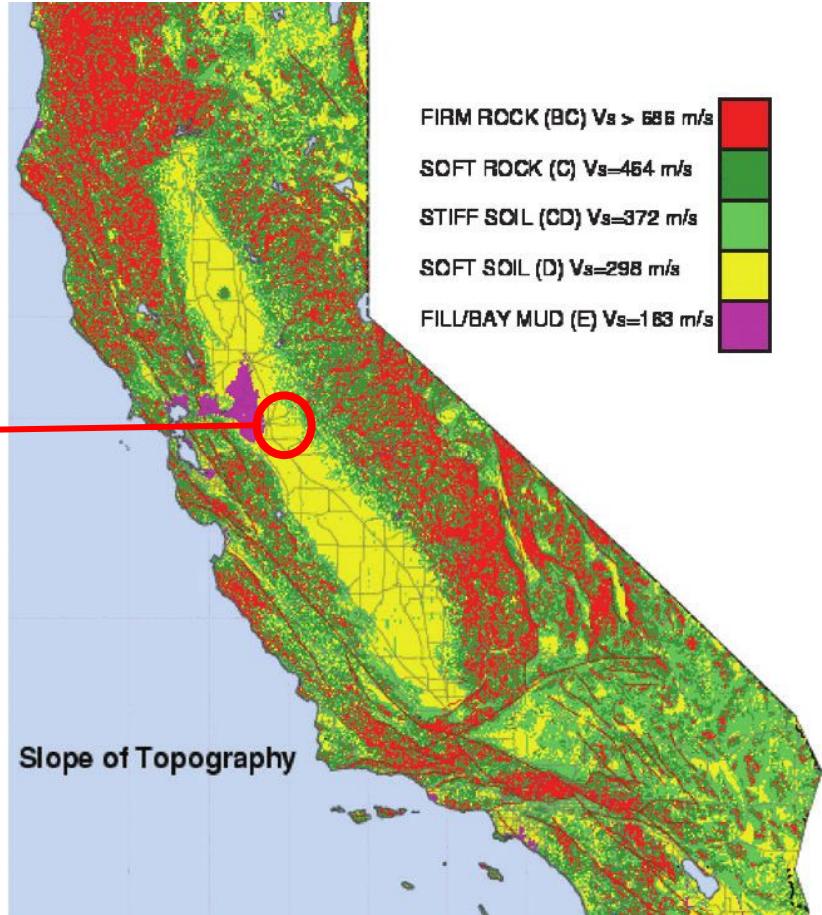
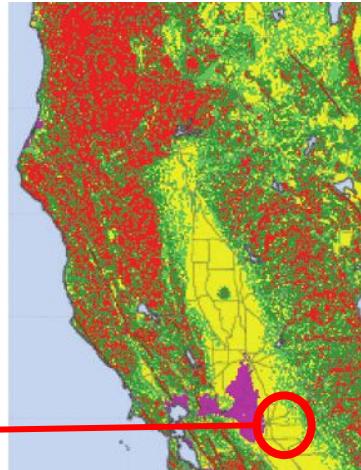
Dr. Ryan Bockmon

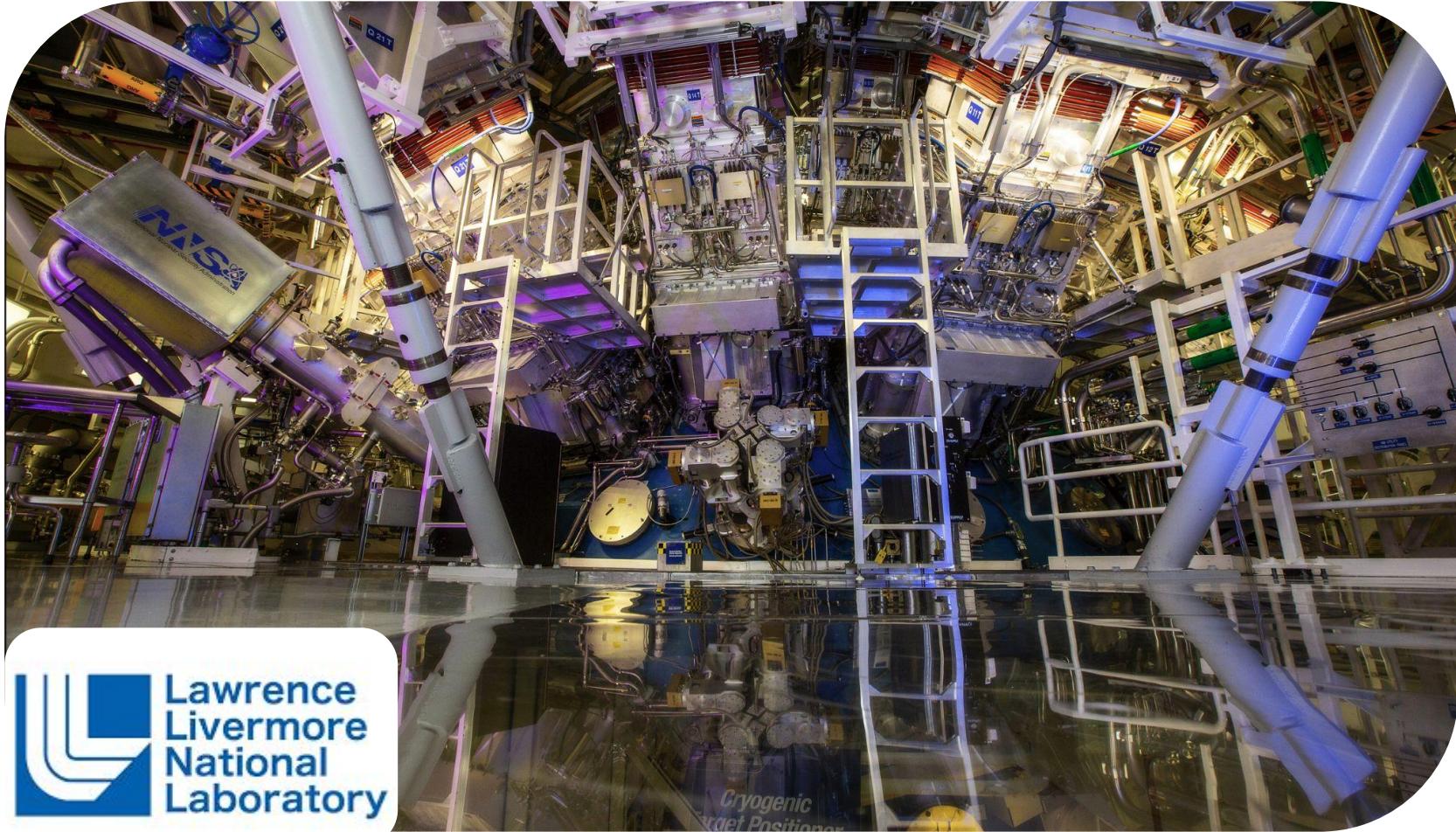


Data Science x You









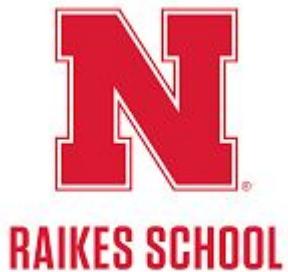
Lawrence
Livermore
National
Laboratory

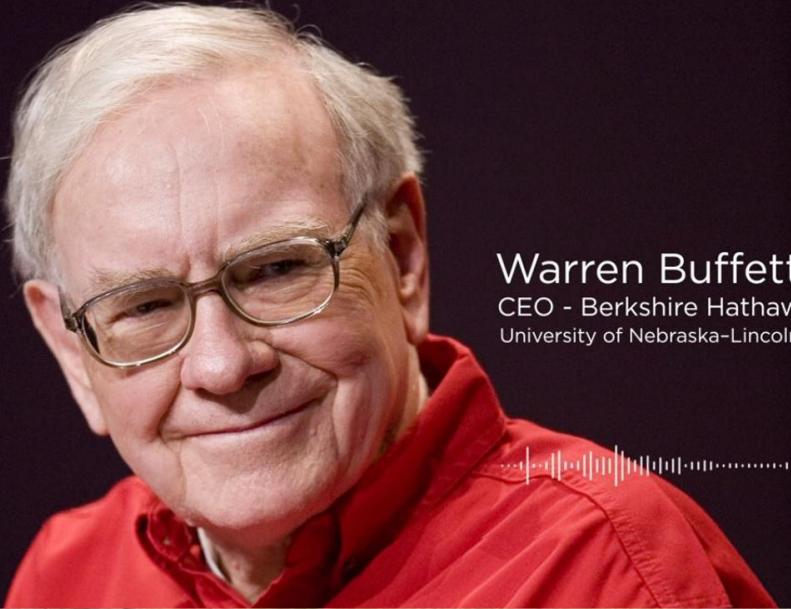
Cryogenic
Target Positioner





Jeffrey S. Raikes schools of Computer Science and Management





Warren Buffett
CEO - Berkshire Hathaway
University of Nebraska-Lincoln, Class of 1951



Warren Buffett and Rwanda





Automatic Pepper Identification



(d)



(e)



(f)

Computer Vision - Object Detection

Algorithm 1



Algorithm 2

Algorithm 3

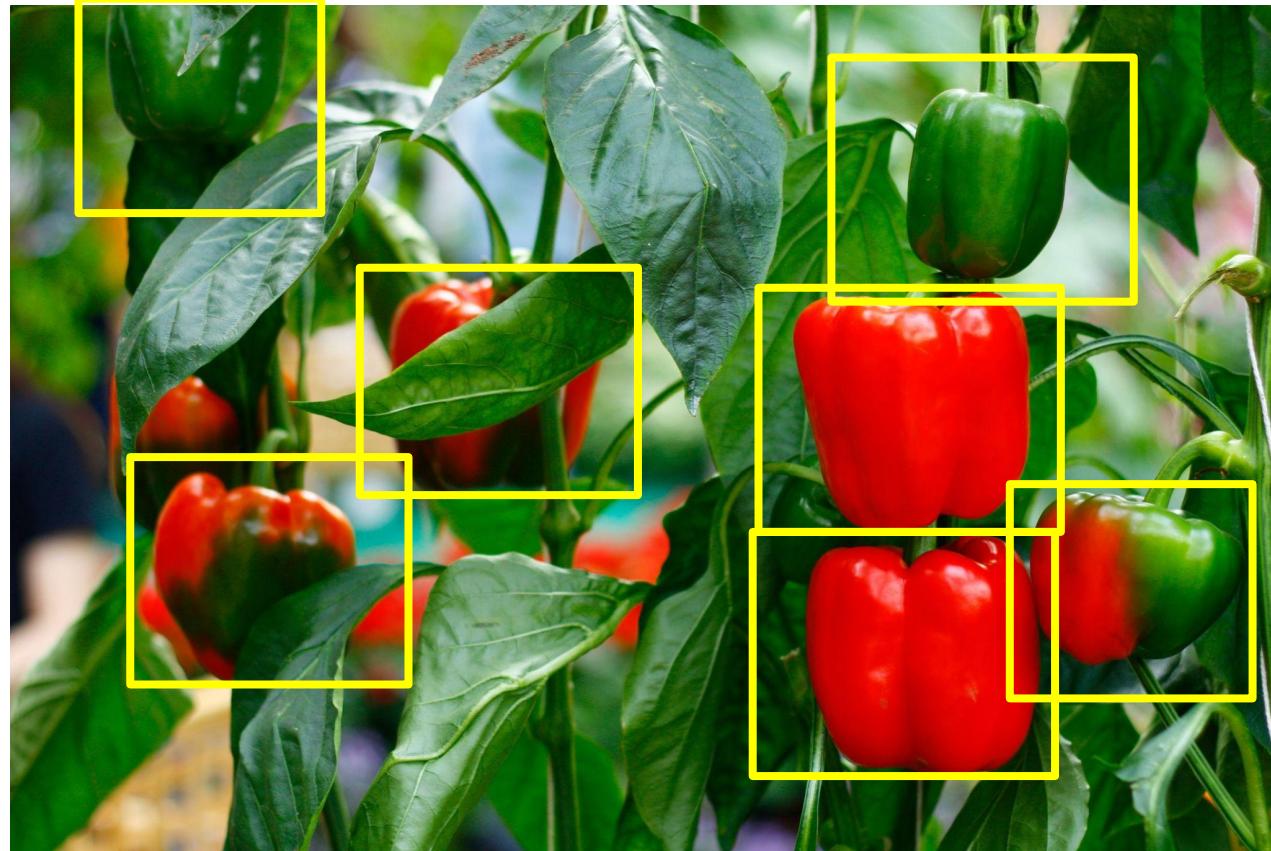
Algorithm 4

Algorithm 5

Algorithm 6

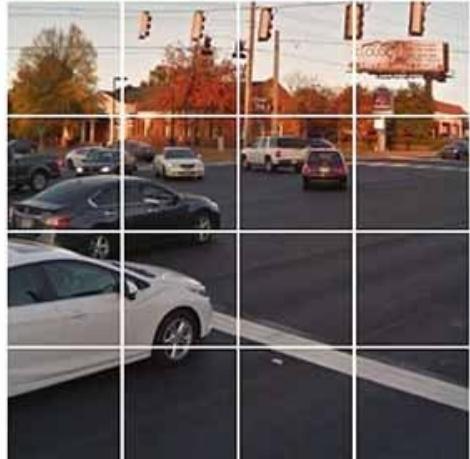
Convolutional Neural Networks

Identifying Objects is not
an automated process



How does Google do it?

Select all squares with
traffic lights
If there are none, click skip



SKIP

Select all images with **statues**.

Choose a task

You are solving a CAPTCHA. This helps protect us from spammers.

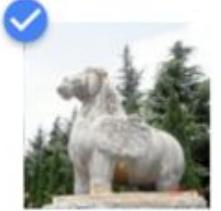
Recrawl this page

Google will never share your information with third parties.

Note: This task may be used to verify that you are not a computer program.



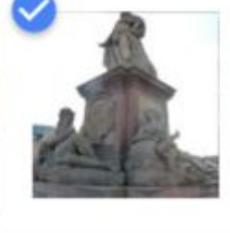
















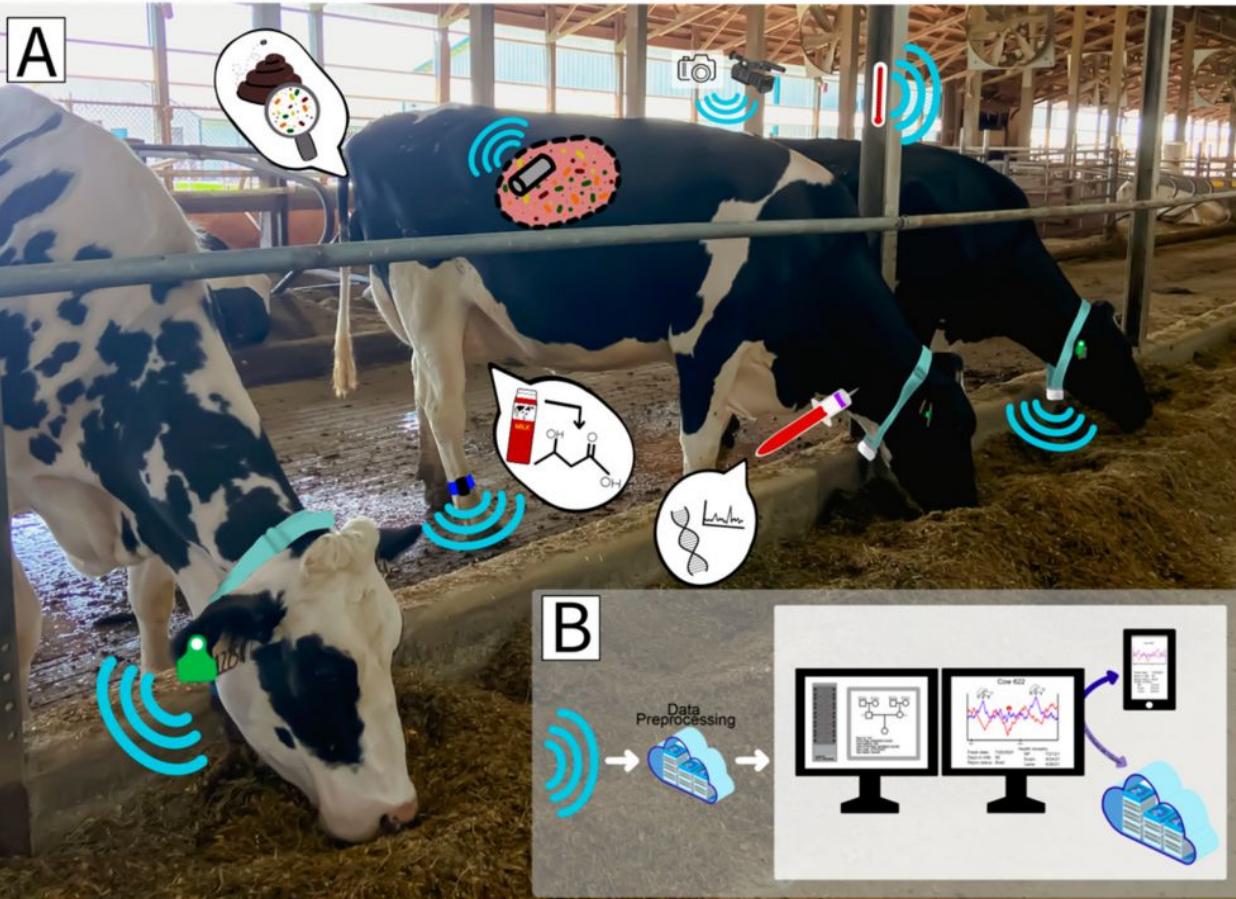
Go

VERIFY

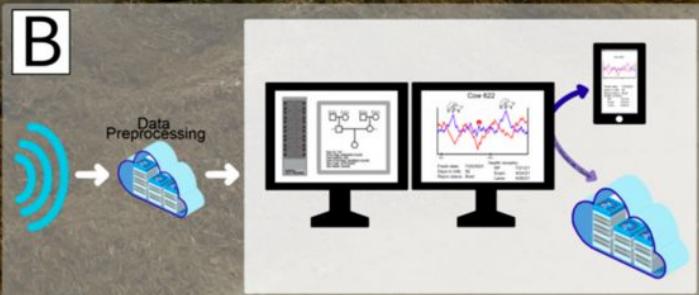
A photograph of a large herd of cattle of various colors (black, brown, white) standing in a green pasture under a blue sky with scattered clouds.

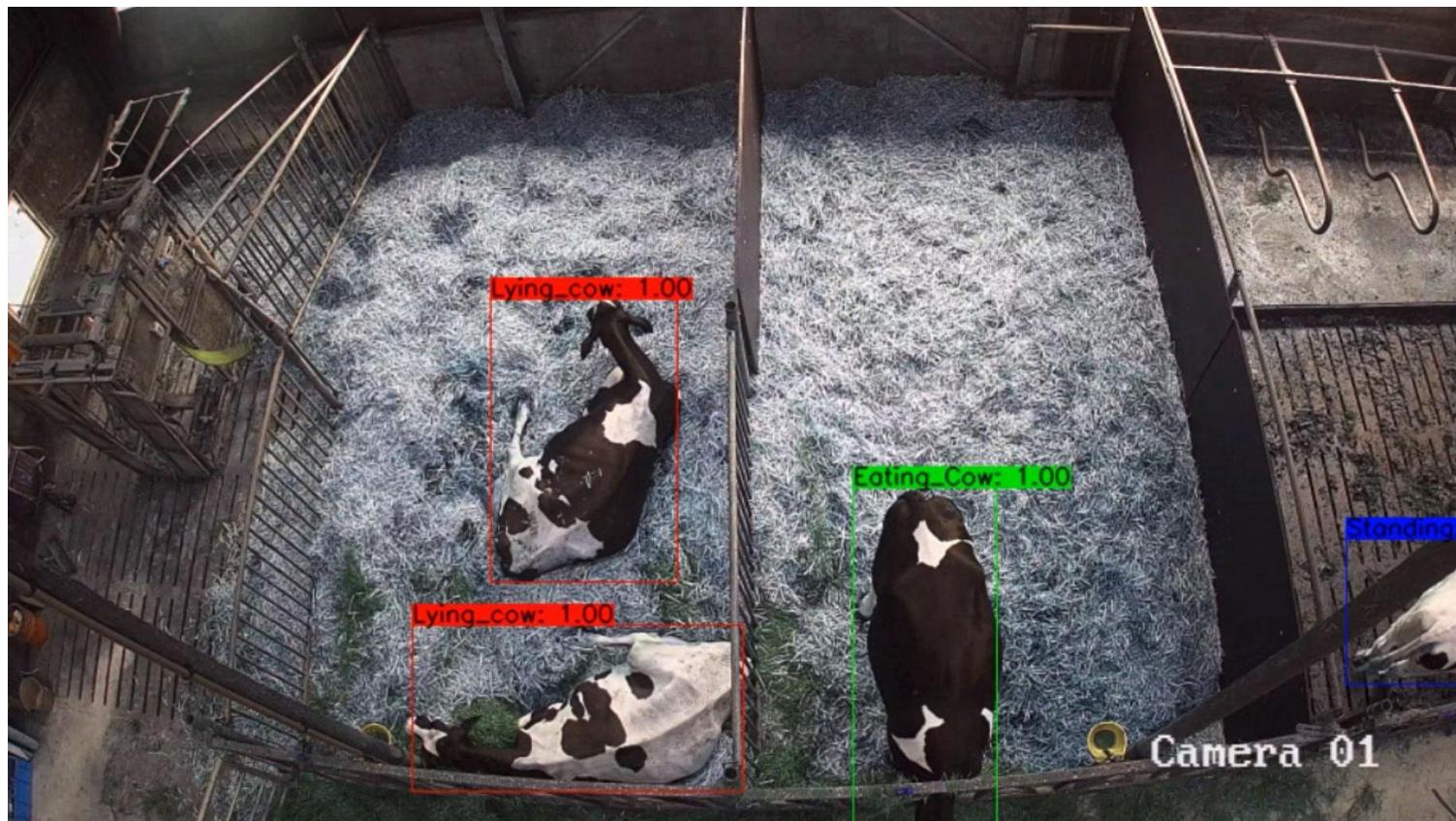
INCUBATOR RESIDENT

Seth Daup and Brooke Bode

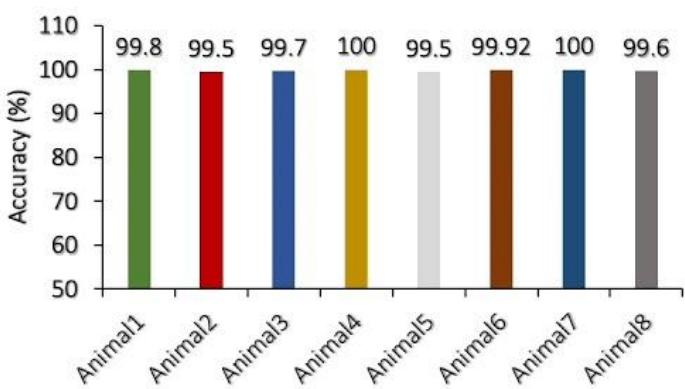


Smart Cow
Technology





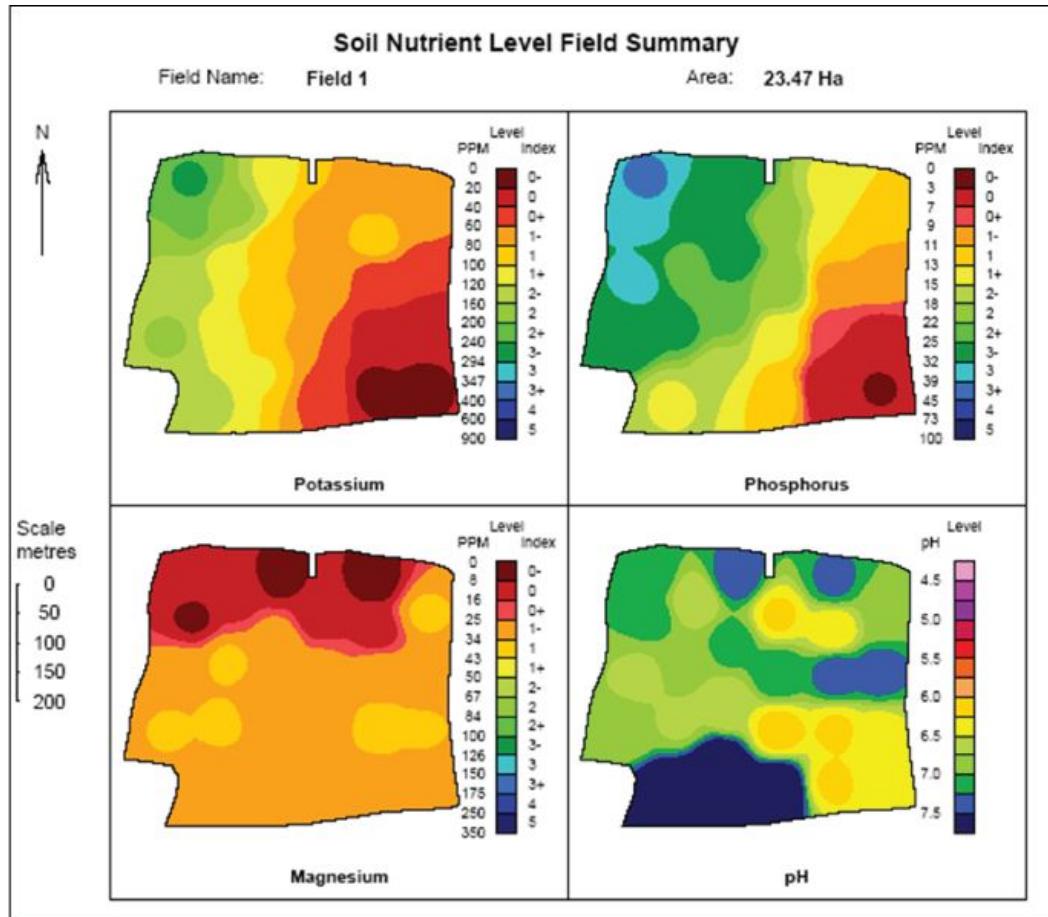
Predicting Feeding Behavior: Bunk Visits



Bresolin (2020)

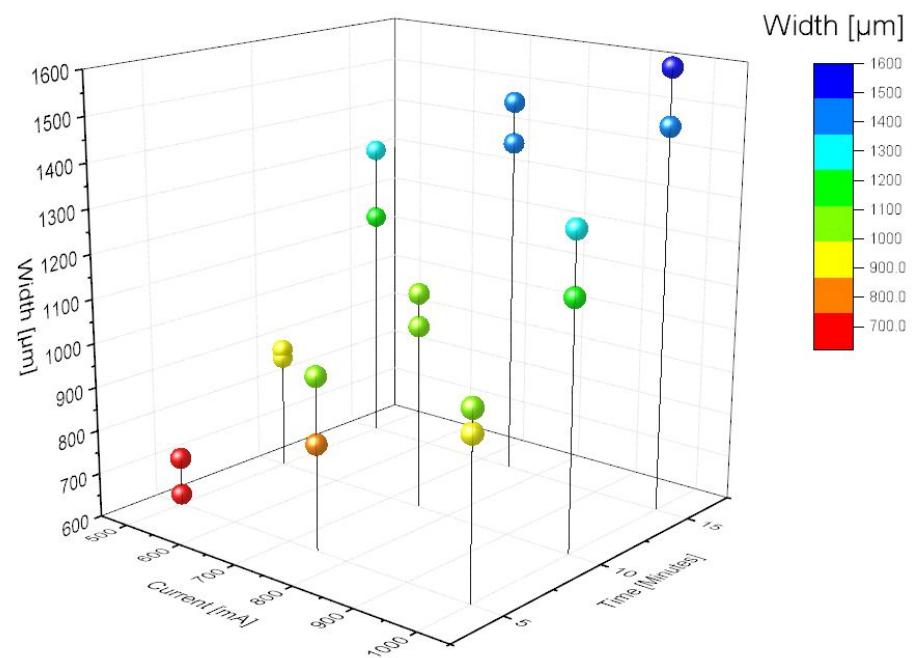
Visualizing Soil Nutrients

Brooke Bode



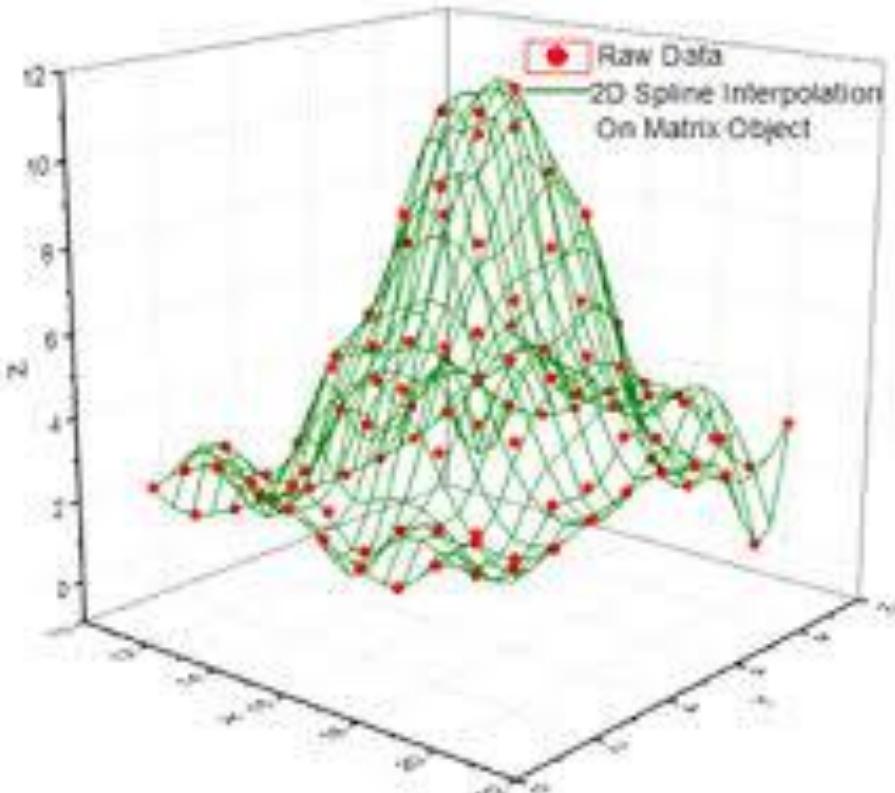
What does the data look like?

- It is not easy to take continuous data.
- Solution - take sample points at a constant interval.
- Issue - hard to read



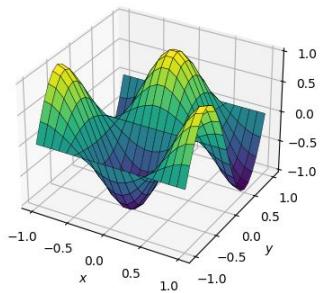
Solution

- 2d - Interpolation
- 2d - Mesh

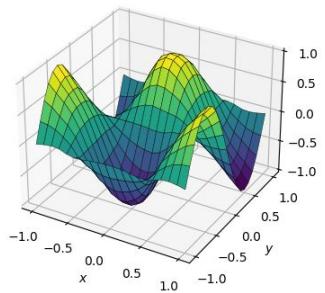


2D Spline Interpolation On Matrix Object

interp2d



griddata



rbf

