Team Copy Waste

Scrum 4

Oct. 22, 2021 - Nov. 18, 2021

IN PARTNERSHIP WITH
PRAIRIE ROBOTICS

THE TEAM

Nolan Flegel

Machine Learning

Rishabh Prasad

Front-End Services

William Peers

Back-End Services

PROJECT VISION

*REDUCE **RISK** FOR*
WASTE MANAGEMENT
***WORKERS** & **COST** FOR*
MUNICIPALITIES

OBJECTIVE

*CREATE AN **OBJECT DETECTION MODEL FOR RARE** AND **SEVERE CONTAMINATION** IN HOUSEHOLD RECYCLING*

STATUS
GREEN

Project Issues / Changes

- Yolo Format
- Green Screen Integrations

Mitacs Report Submitted!

Individual Contributions & Next Up

Overview

GREEN SCREEN

LOGOUT

CITY PERFORMANCE

Contamination Rate: 23%
Common Contaminant: Plastic Bag

312	222
OFFENDERS	CONTAMINANTS

RECENT COLLECTION

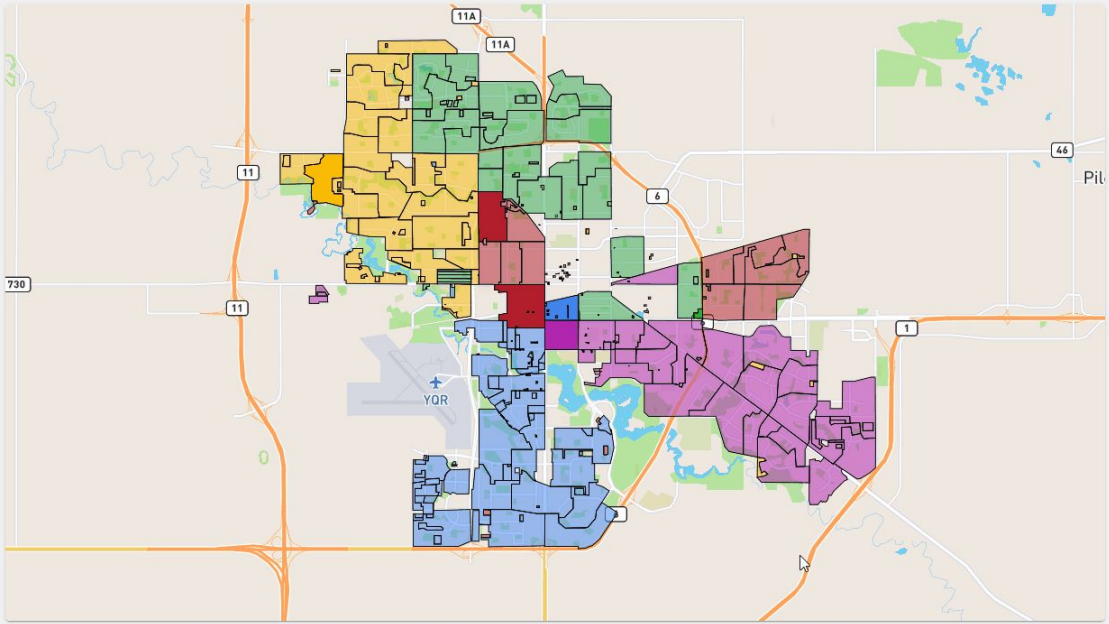
Collection Dates: Oct 25 / 2021 - Oct 31 / 2021

Collection Zones: South East and East

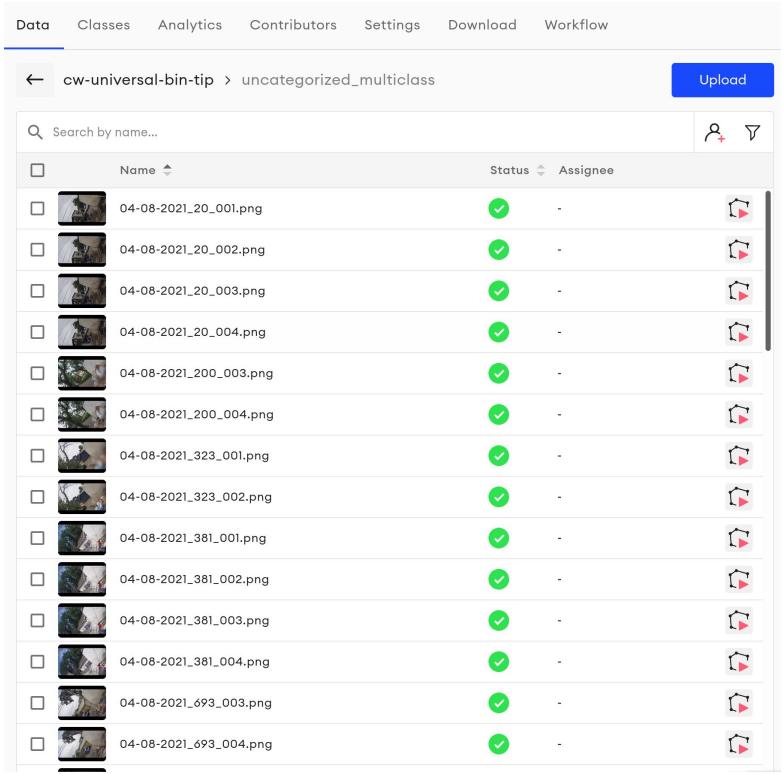
Hazardous Waste: 5

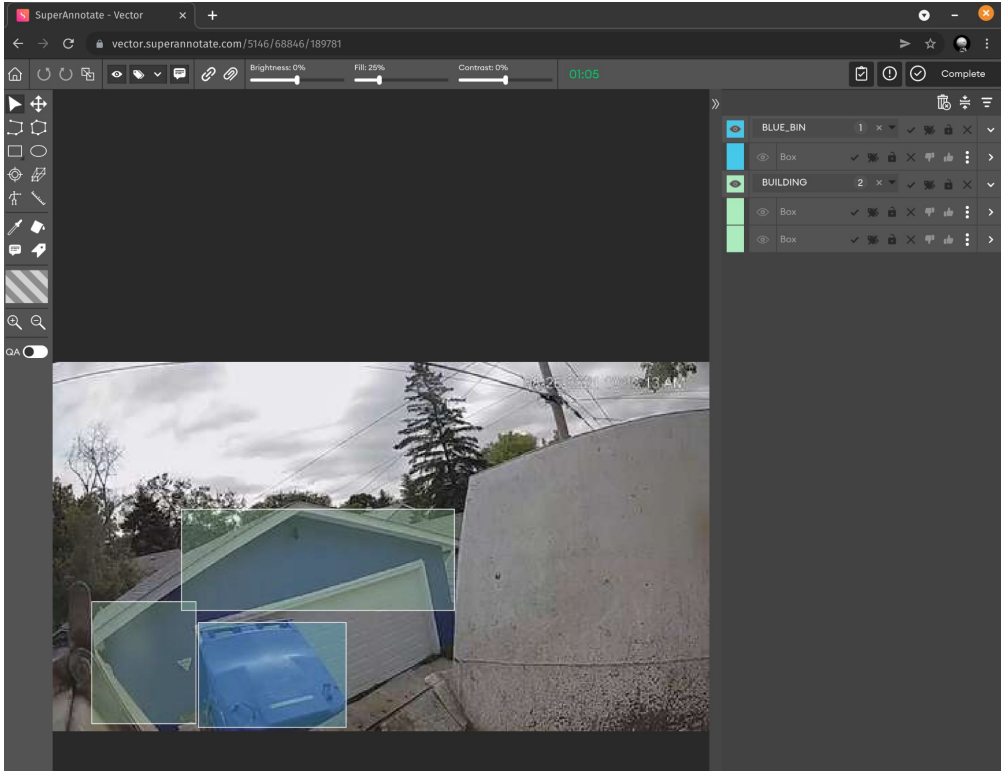
Households Collected: 221

Total Contaminants: 123



SuperAnnotate

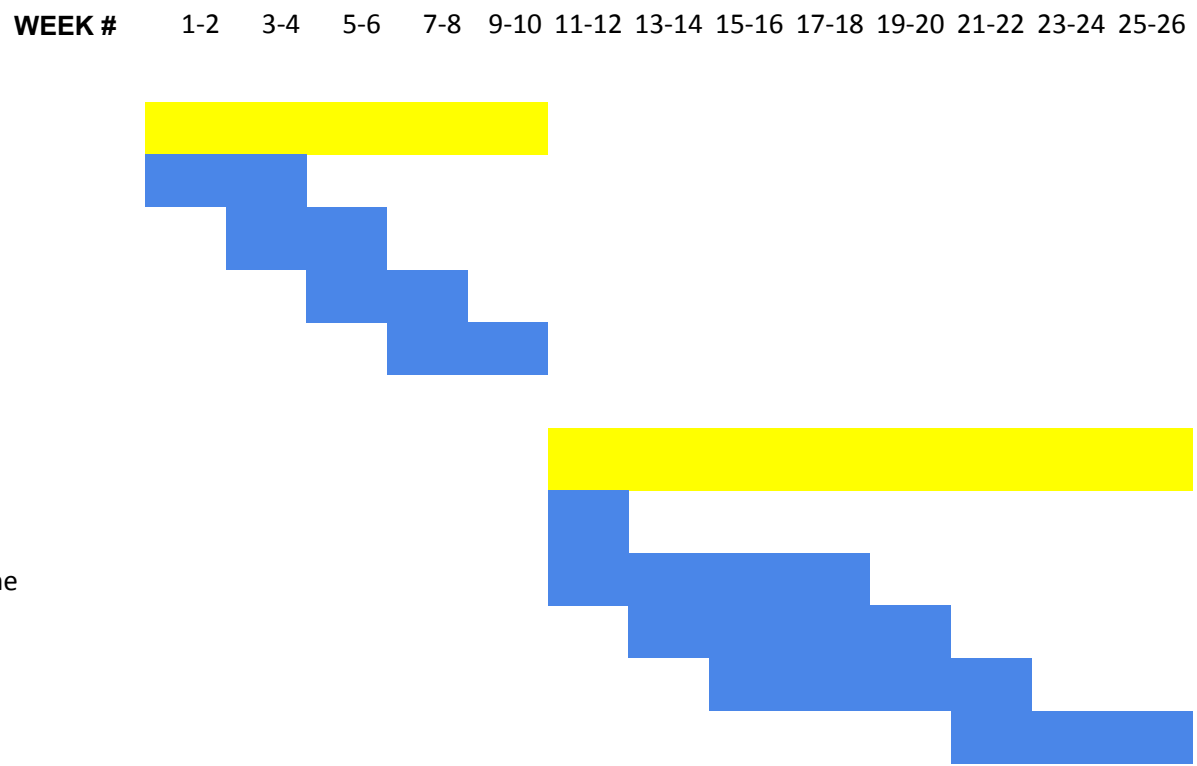




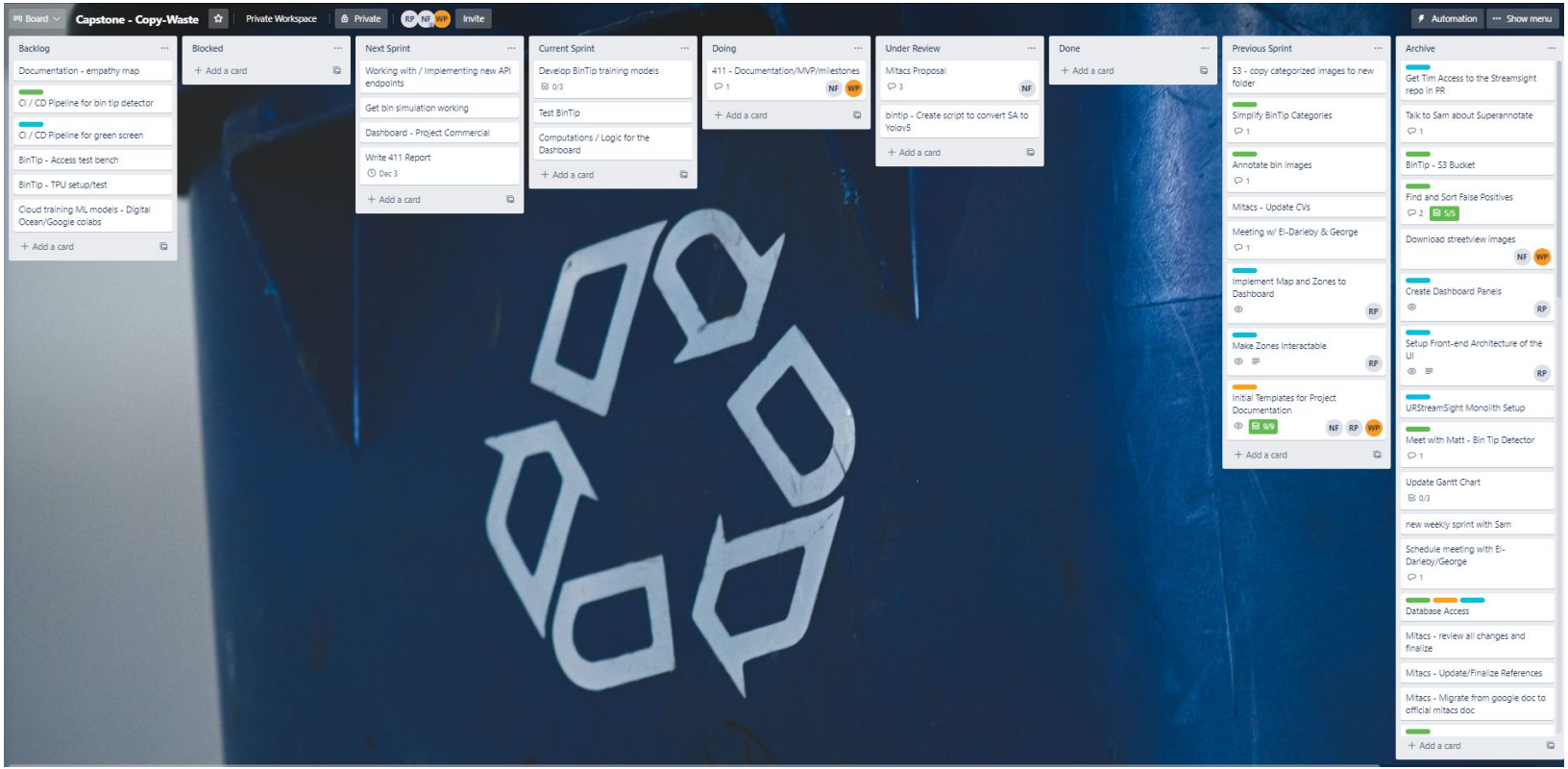
SuperAnnotate

SuperAnnotate

Overview


WEEK #
1-2
3-4
5-6
7-8
9-10
11-12
13-14
15-16
17-18
19-20
21-22
23-24
25-26
Phase 1: Bin-tip
Research real-time detection algorithms
Collect false-positive images
Annotate images
Train detection models
Phase 2: Copy-Paste Augmentation
Collect various images of HHW items
Develop Copy/Paste Augmentation pipeline
Create test dataset
Train model
Evaluate results

Overview


Board
Capstone - Copy-Waste
Private Workspace
Private
Invite
Automation
Show menu
Backlog
Documentation - empathy map
CI / CD Pipeline for bin tip detector
CI / CD Pipeline for green screen
BinTip - Access test bench
BinTip - TPU setup/test
Cloud training ML models - Digital Ocean/Google colabs
Add a card
Blocked
Add a card
Next Sprint
Working with / Implementing new API endpoints
Get bin simulation working
Dashboard - Project Commercial
Write 411 Report
Dec 3
Add a card
Current Sprint
Develop BinTip training models
0/3
Test BinTip
Computations / Logic for the Dashboard
Add a card
Doing
411 - Documentation/MVP/milestones
1
Add a card
Under Review
Mitacs Proposal
3
bintip - Create script to convert SA to Yolov5
Add a card
Done
Add a card
Previous Sprint
S3 - copy categorized images to new folder
Simplify BinTip Categories
1
Annotate bin images
1
Mitacs - Update CVs
Meeting w/ El-Darieby & George
1
Implement Map and Zones to Dashboard
Make Zones Interactable
Initial Templates for Project Documentation
9/9
Add a card
Archive
Get Tim Access to the Streamsight repo in PR
Talk to Sam about Superannotate
1
BinTip - S3 Bucket
Find and Sort False Positives
2
5/5
Download streetview images
Create Dashboard Panels
Setup Front-end Architecture of the UI
URStreamSight Monolith Setup
Meet with Matt - Bin Tip Detector
1
Update Gantt Chart
0/3
new weekly sprint with Sam
Schedule meeting with El-Darieby/George
1
Database Access
Mitacs - review all changes and finalize
Mitacs - Update/Finalize References
Mitacs - Migrate from google doc to official mitacs doc
Add a card

Reflection

→ Does the team feel "on track"?

- We believe we are still on track.

→ What progress does the team particularly feel good (great) about?

- We made great progress in the last 2-3 weeks
- Mitacs proposal submitted
- Overcoming obstacles as a team

Reflection

→ What barriers (if any) does the team feel are a current impediment to success?

- Unexpected integration issues with PR API
- Annotation format compatibility issues

→ What help (if any) does the team require to move positively forward?

- Coordinate with PR to test bin detector
- Develop a plan of actions for the development of the Copy-Paste pipeline

Reflection

→ What questions or concerns does the team have (if any)?

- Falling slightly behind our Gantt Timeline