MinesPark

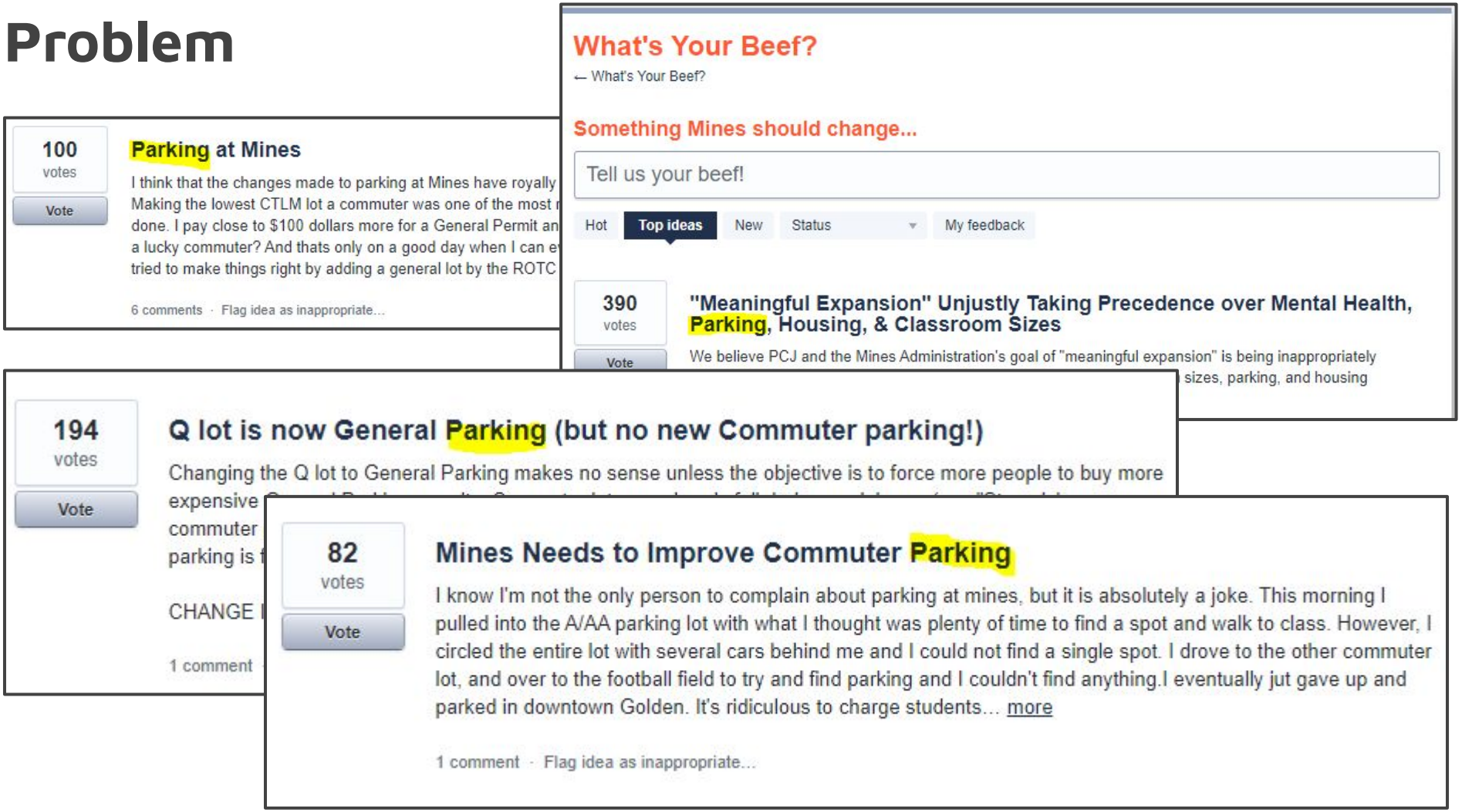
DAAM Hackathon Fall 2019

Ryan Friedman, Natalie Kalin, & Erica West

https://github.com/Ryanf55/mines_parking_hack

Problem

Problem

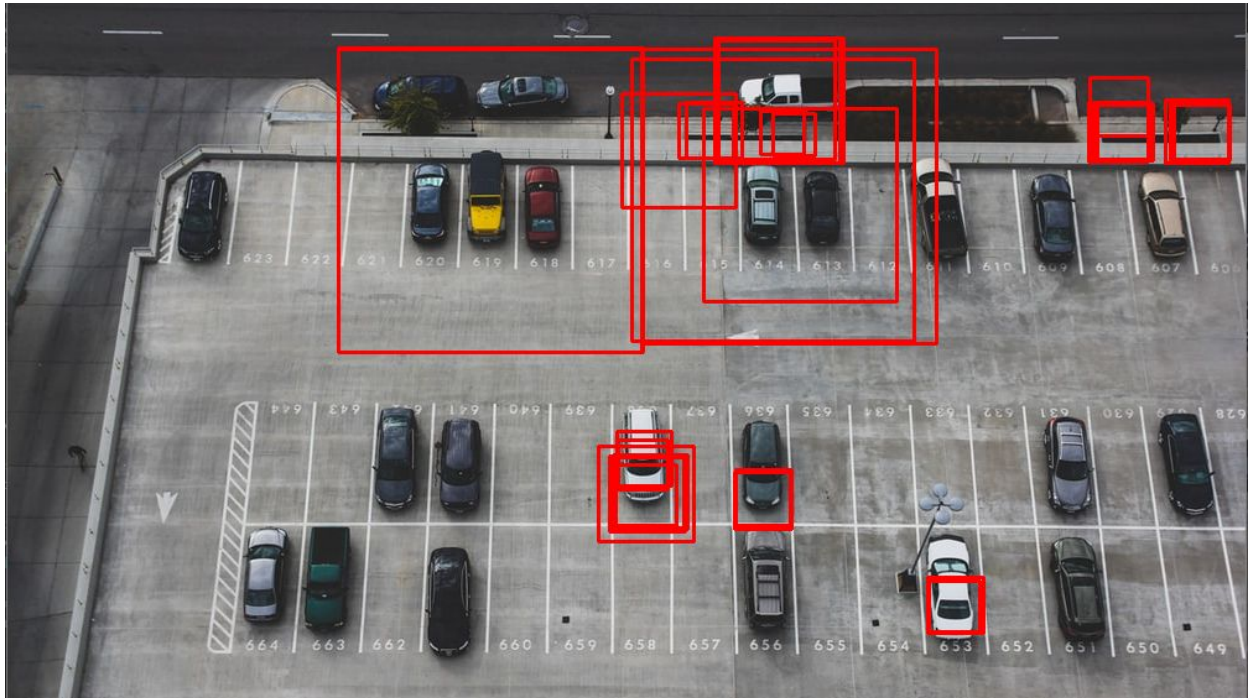

What's Your Beef?
← What's Your Beef?
Something Mines should change...
Tell us your beef!
Hot
Top ideas
New
Status
My feedback
390
votes
Vote
"Meaningful Expansion" Unjustly Taking Precedence over Mental Health, Parking, Housing, & Classroom Sizes
We believe PCJ and the Mines Administration's goal of "meaningful expansion" is being inappropriately
sizes, parking, and housing
100
votes
Vote
Parking at Mines
I think that the changes made to parking at Mines have royally
Making the lowest CTLM lot a commuter was one of the most
done. I pay close to $100 dollars more for a General Permit an
a lucky commuter? And thats only on a good day when I can e
tried to make things right by adding a general lot by the ROTC
6 comments · Flag idea as inappropriate...
194
votes
Vote
Q lot is now General Parking (but no new Commuter parking!)
Changing the Q lot to General Parking makes no sense unless the objective is to force more people to buy more
expensive
commuter
parking is
CHANGE
1 comment
82
votes
Vote
Mines Needs to Improve Commuter Parking
I know I'm not the only person to complain about parking at mines, but it is absolutely a joke. This morning I pulled into the A/AA parking lot with what I thought was plenty of time to find a spot and walk to class. However, I circled the entire lot with several cars behind me and I could not find a single spot. I drove to the other commuter lot, and over to the football field to try and find parking and I couldn't find anything.I eventually jut gave up and parked in downtown Golden. It's ridiculous to charge students… more
1 comment · Flag idea as inappropriate...

Environmental Impacts

- Reductions in student drive times searching for parking spots will lead to lower Carbon Dioxide emissions
- For every 10 minutes a car engine is off, we prevent one pound of Carbon Dioxide from being released

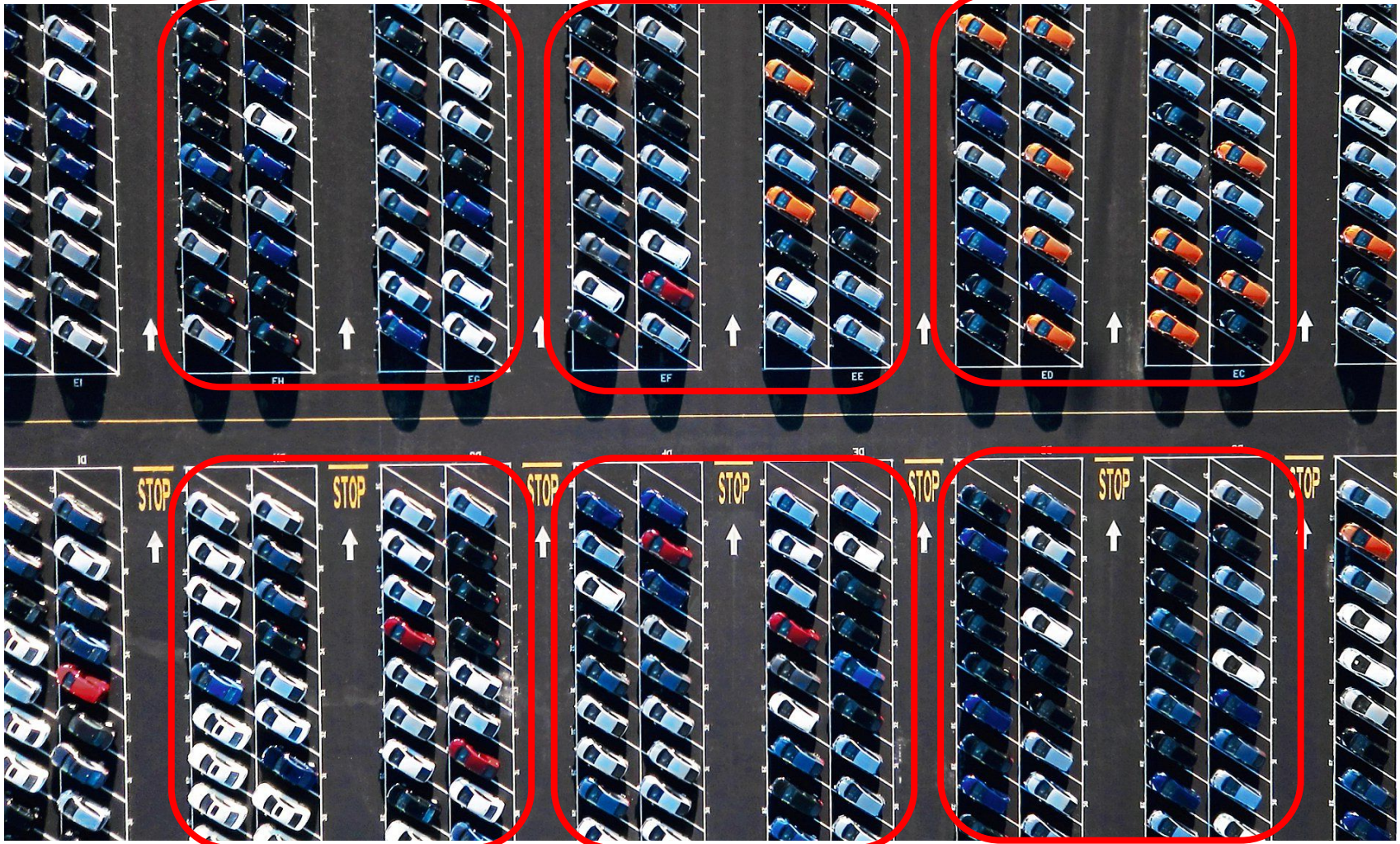
Existing Solutions

CascadeClassifier Using Pre-Trained Classifier - Garbage



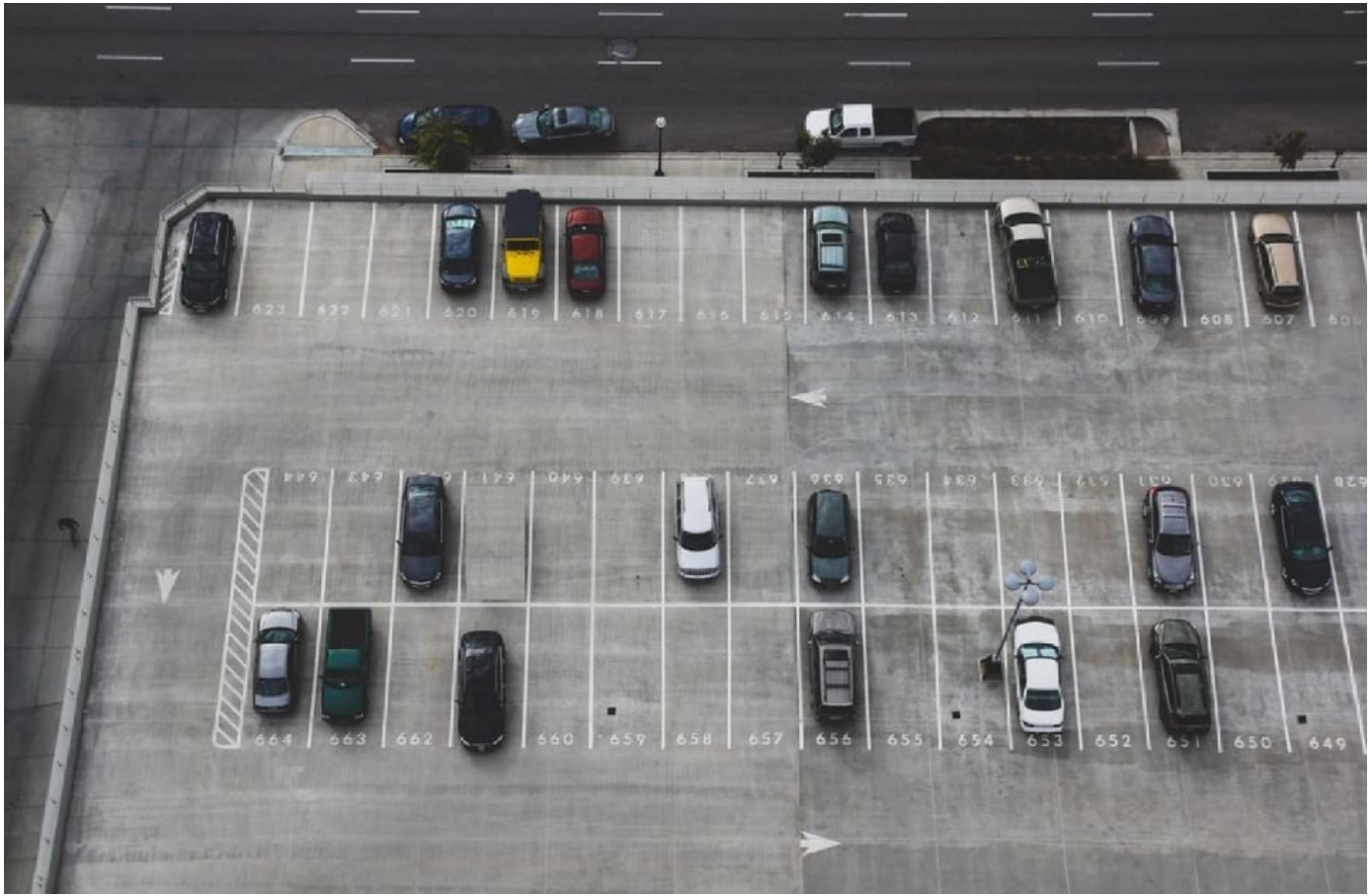
Our Solution

Uniqueness

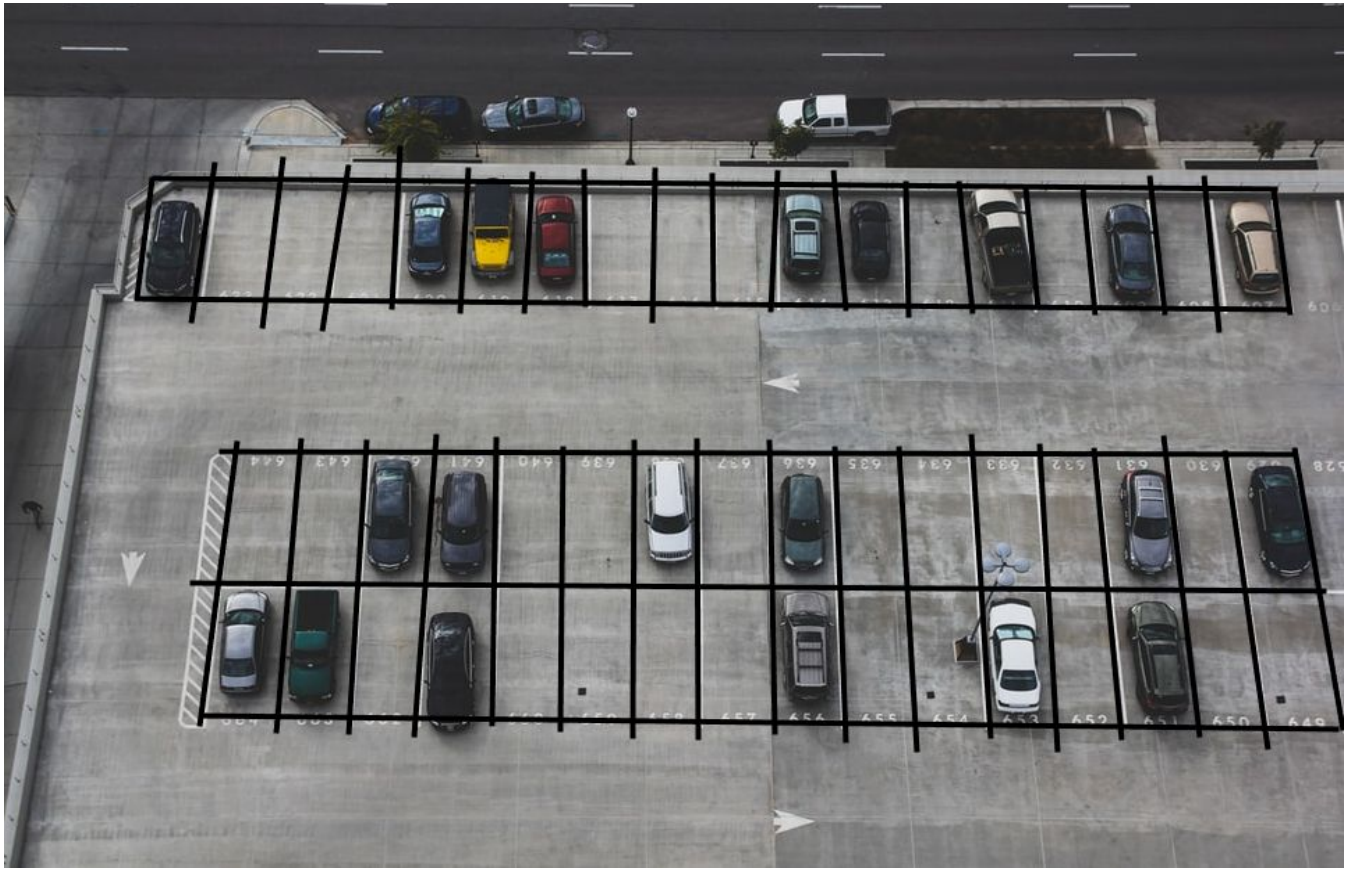

STOP
STOP
STOP
STOP
STOP
STOP

Technical Solution

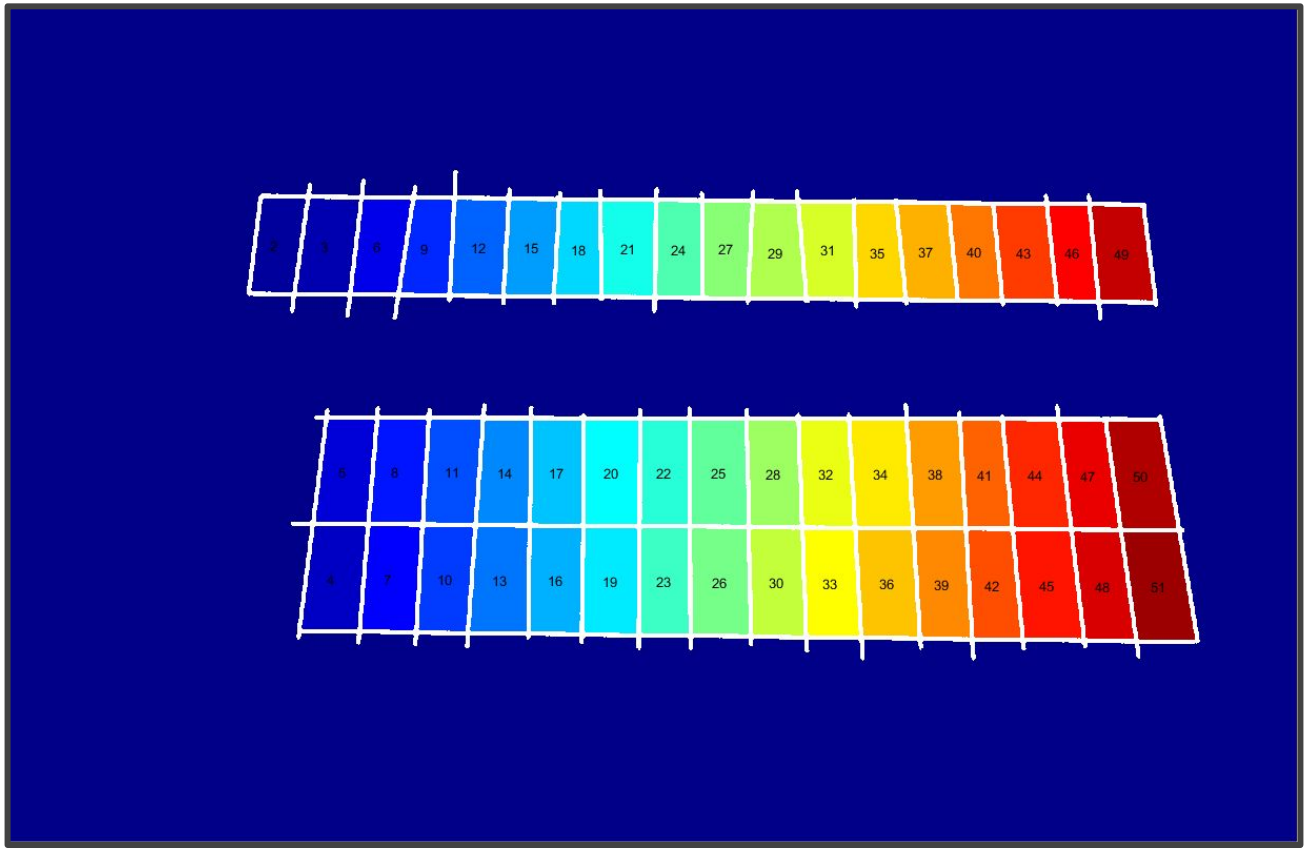
Initial Parking Lot



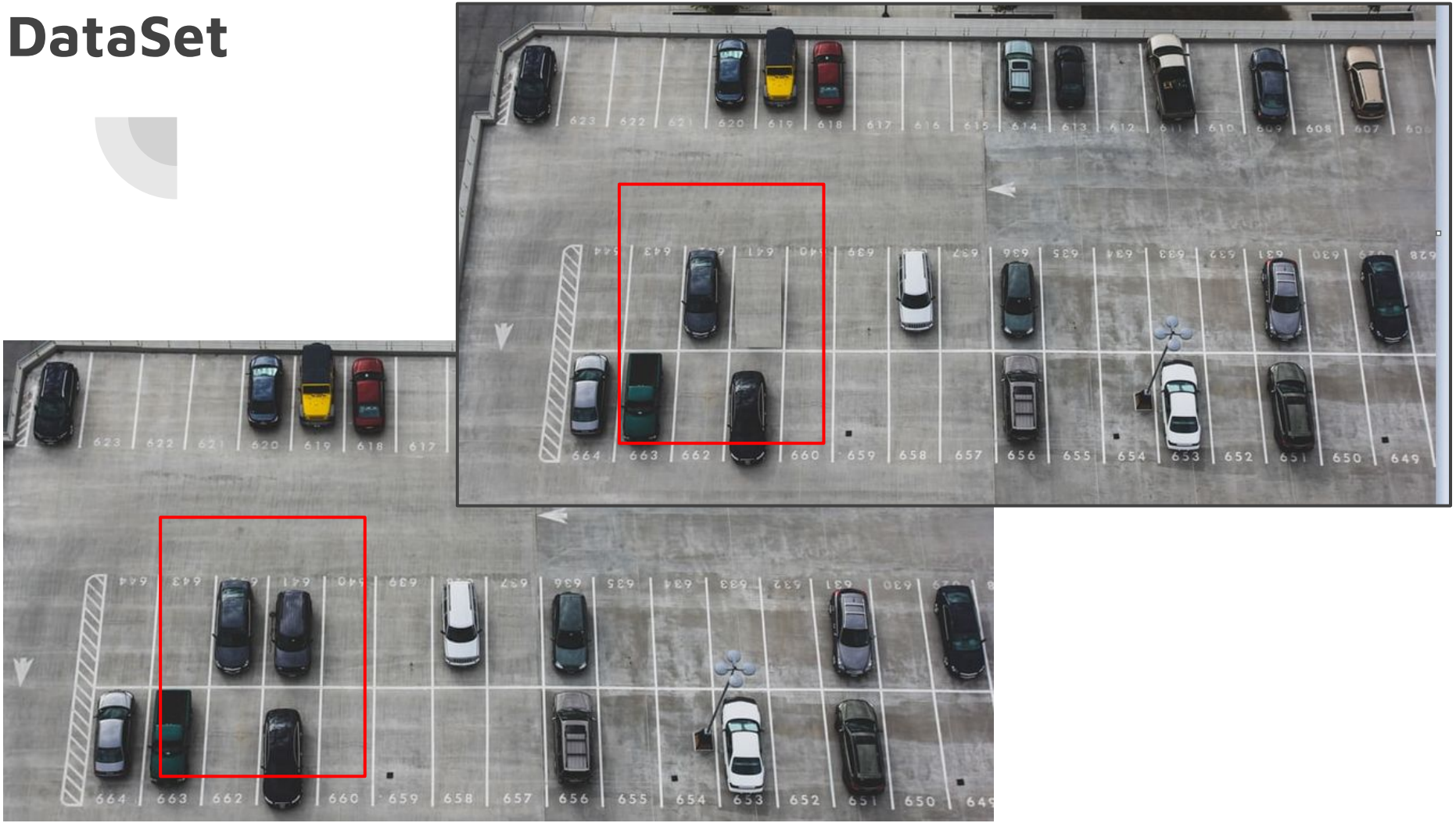
Setting Parking Boundaries



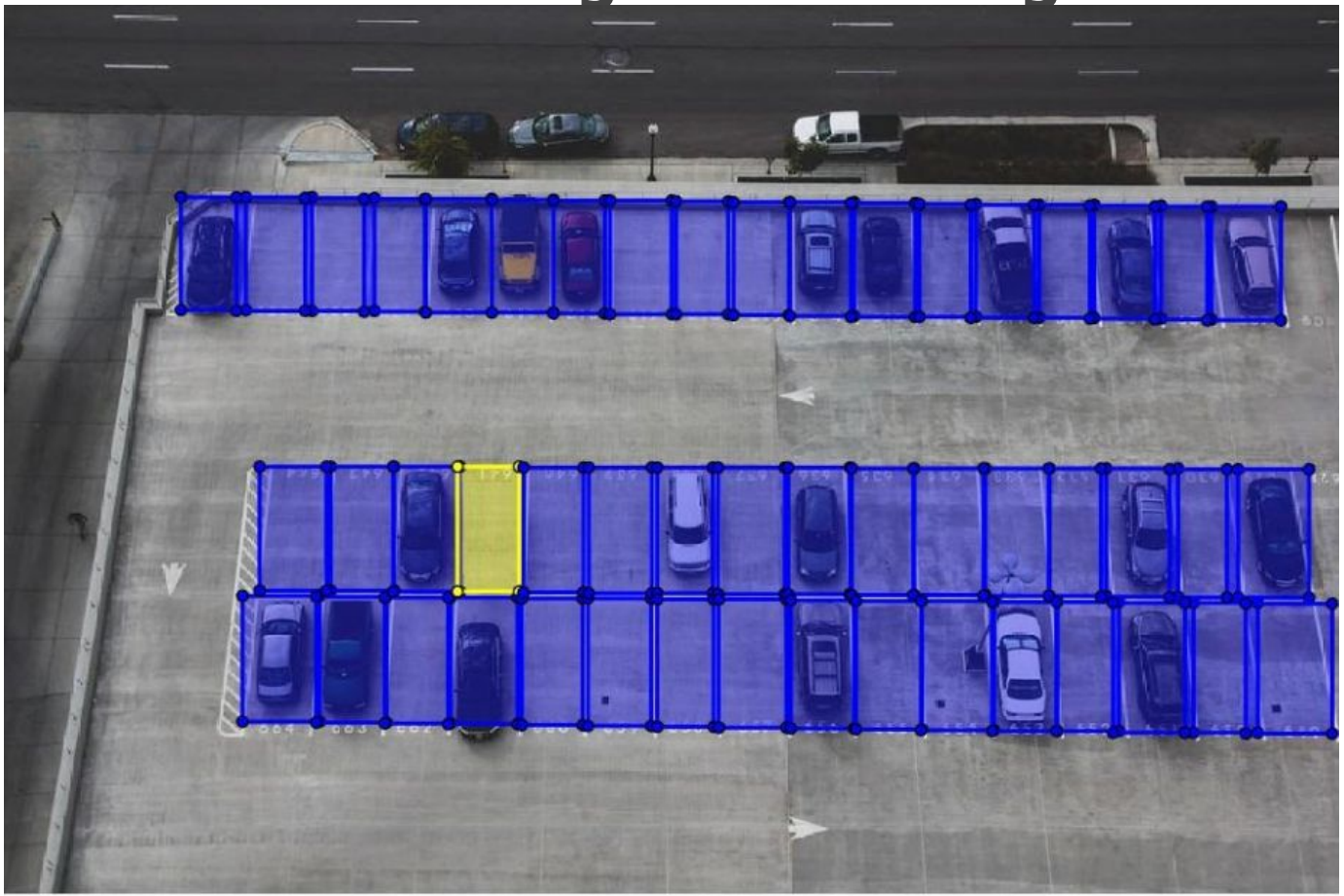
Assigning Spot ID’s



DataSet

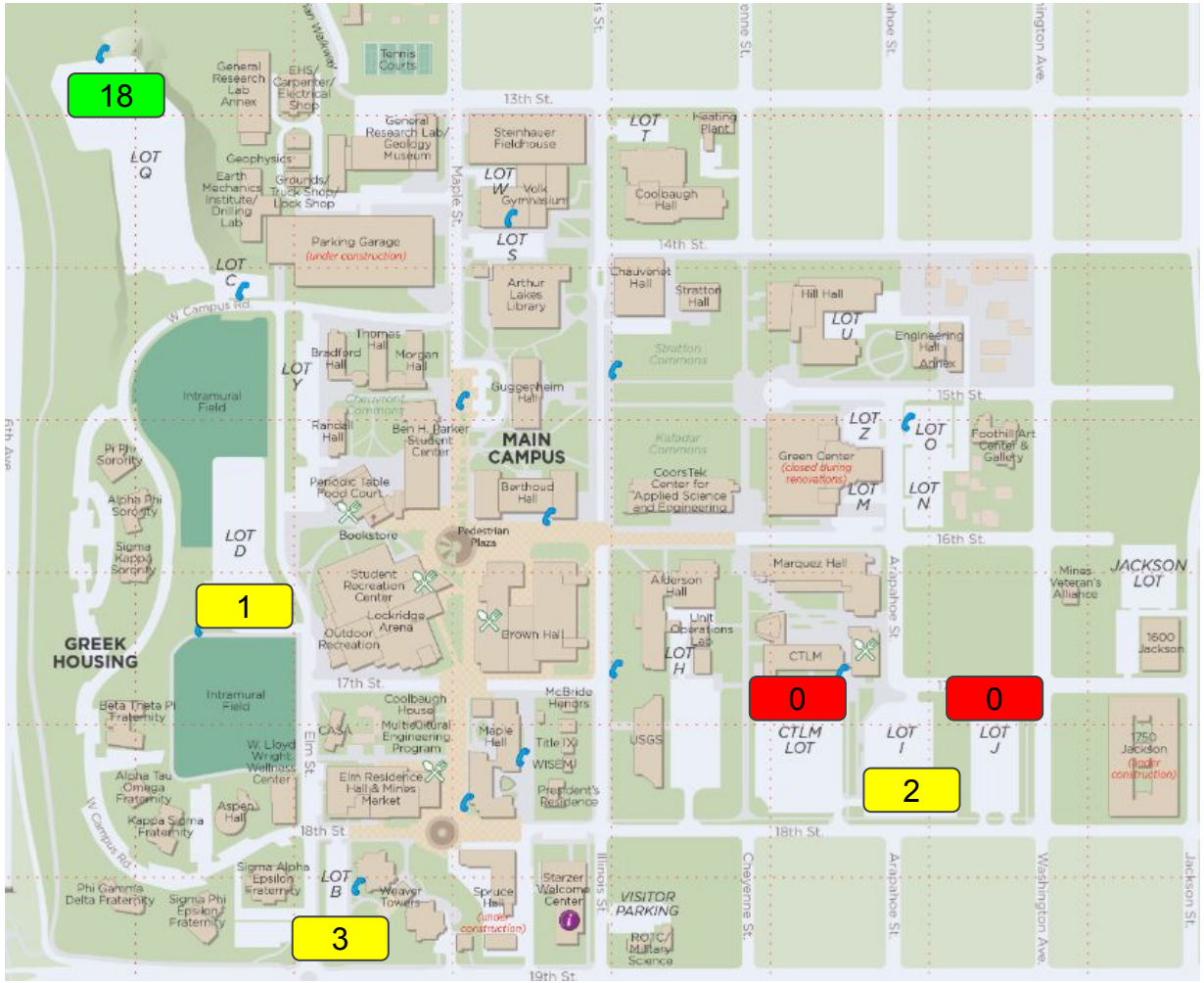


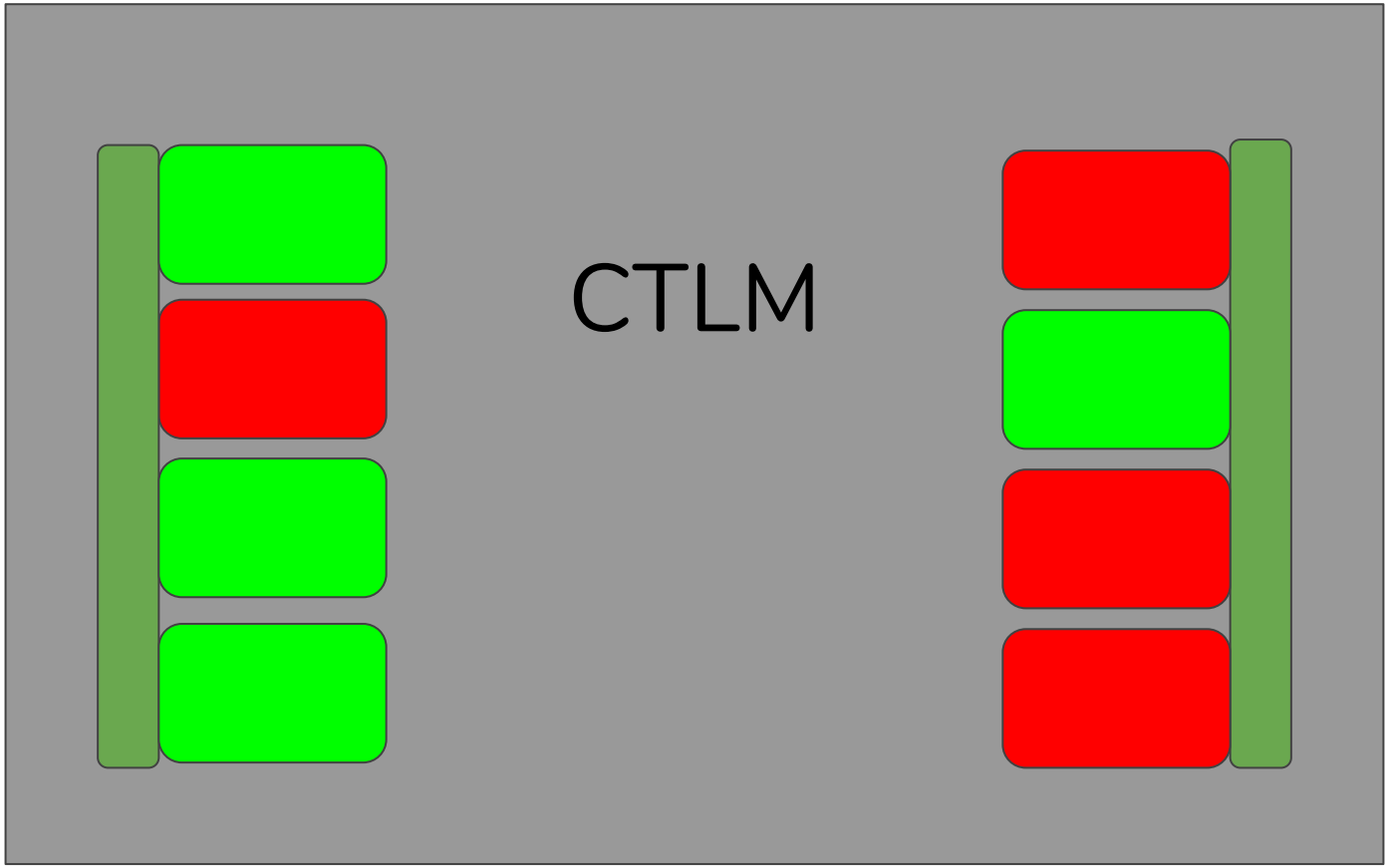
Visualizing State Change



Detecting Spot Occupancies

Product Mock-Up


18
1
0
0
2
3
GREEK HOUSING
MAIN CAMPUS
JACKSON LOT
CTLM LOT
VISITOR PARKING
LOT Q
LOT C
LOT Y
LOT D
LOT B
LOT S
LOT W
LOT T
LOT U
LOT Z
LOT O
LOT M
LOT N
LOT H
LOT I
LOT J
13th St.
14th St.
15th St.
16th St.
17th St.
18th St.
19th St.
Maple St.
Elm St.
Arapahoe St.
Cheyenne St.
Illinois St.
Washington Ave.
Jackson St.
W. Campus Rd.
Fifth Ave.
Tennis Courts
General Research Lab Annex
EHS/ Carpenter/ Electrical Shop
General Research Lab/ Geology Museum
Steinhauer Fieldhouse
Volk Gymnasium
Heating Plant
Coolbaugh Hall
Geophysics
Earth Mechanics Institute/ Drilling Lab
Grounds/ Truck Shop/ Lock Shop
Parking Garage (under construction)
Arthur Lakes Library
Chauvenet Hall
Stratton Hall
Hill Hall
Engineering Hall Annex
Stratton Commons
Thomas Hall
Bradford Hall
Morgan Hall
Chauvenet Commons
Guggenheim Hall
Intramural Field
Randall Hall
Ben H. Parker Student Center
Kittredge Commons
Green Center (closed during renovations)
Foothills Art Center & Gallery
CoorsTek Center for Applied Science and Engineering
Pi Phi Sorority
Alpha Phi Sorority
Sigma Kappa Sorority
Periodic Table Food Court
Bookstore
Berthoud Hall
Pedestrian Plaza
Student Recreation Center
Lockridge Arena
Outdoor Recreation
Brown Hall
Alderson Hall
Unit Operations Lab
Marquez Hall
CTLM
Minas Veteran's Alliance
1600 Jackson
Beta Theta Pi Fraternity
Intramural Field
W. Lloyd Wright Wellness Center
Coolbaugh House
CASA
Multicultural Engineering Program
Maple Hall
McBride Hall
Title IX/ WISEMI
President's Residence
USGS
1750 Jackson (under construction)
Alpha Tau Omega Fraternity
Kappa Sigma Fraternity
Aspen Hall
Elm Residence Hall & Mines Market
Sigma Alpha Epsilon Fraternity
Phi Gamma Delta Fraternity
Sigma Phi Epsilon Fraternity
Weaver Towers
Spruce Hall (under construction)
Starzer Welcome Center
ROTC/ Military Science


CTLM

Next Steps

Expansion

- Use data from app to track typical parking lot occupancy on specific times and days
- Build recommendations on which lot to park in based on time and day

Thank You!

~

Questions?