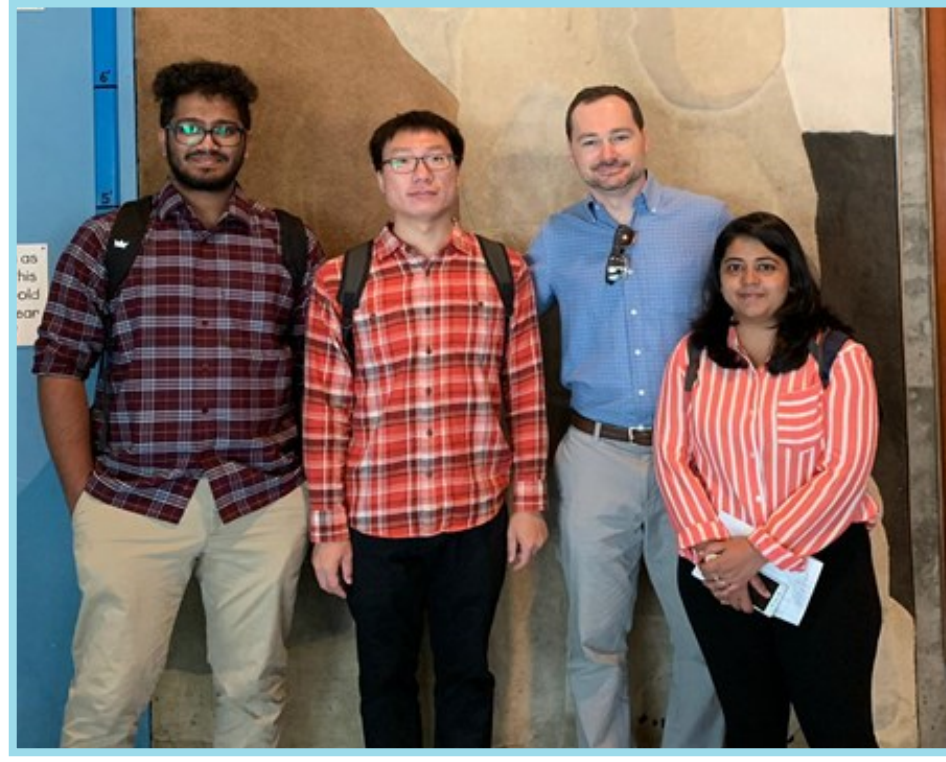




GRIT CITY CARNIVORE PROJECT

A RESEARCH PARTNERSHIP OF
UW TACOMA • NORTHWEST TREK •
POINT DEFIANCE ZOO & AQUARIUM



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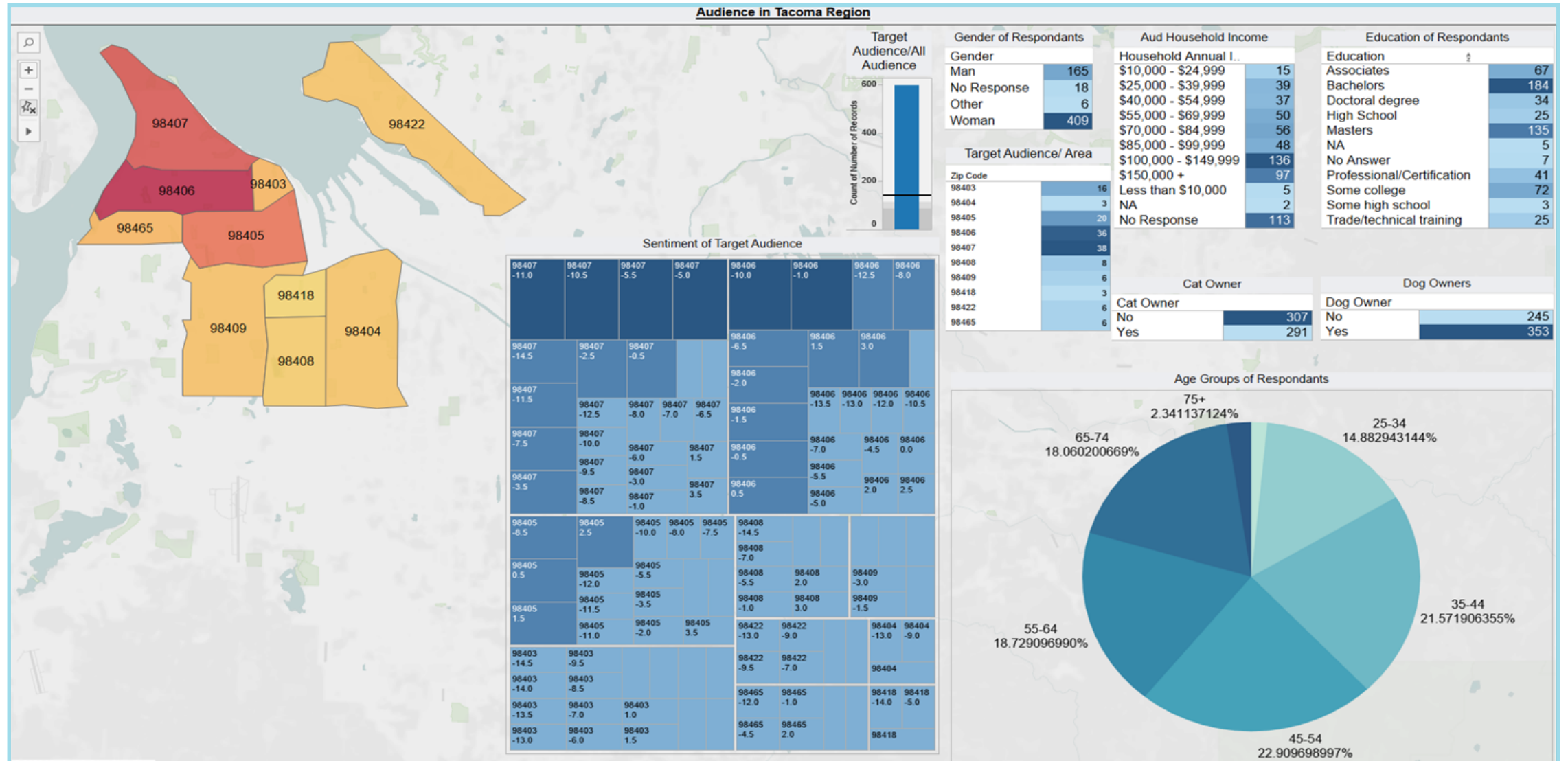
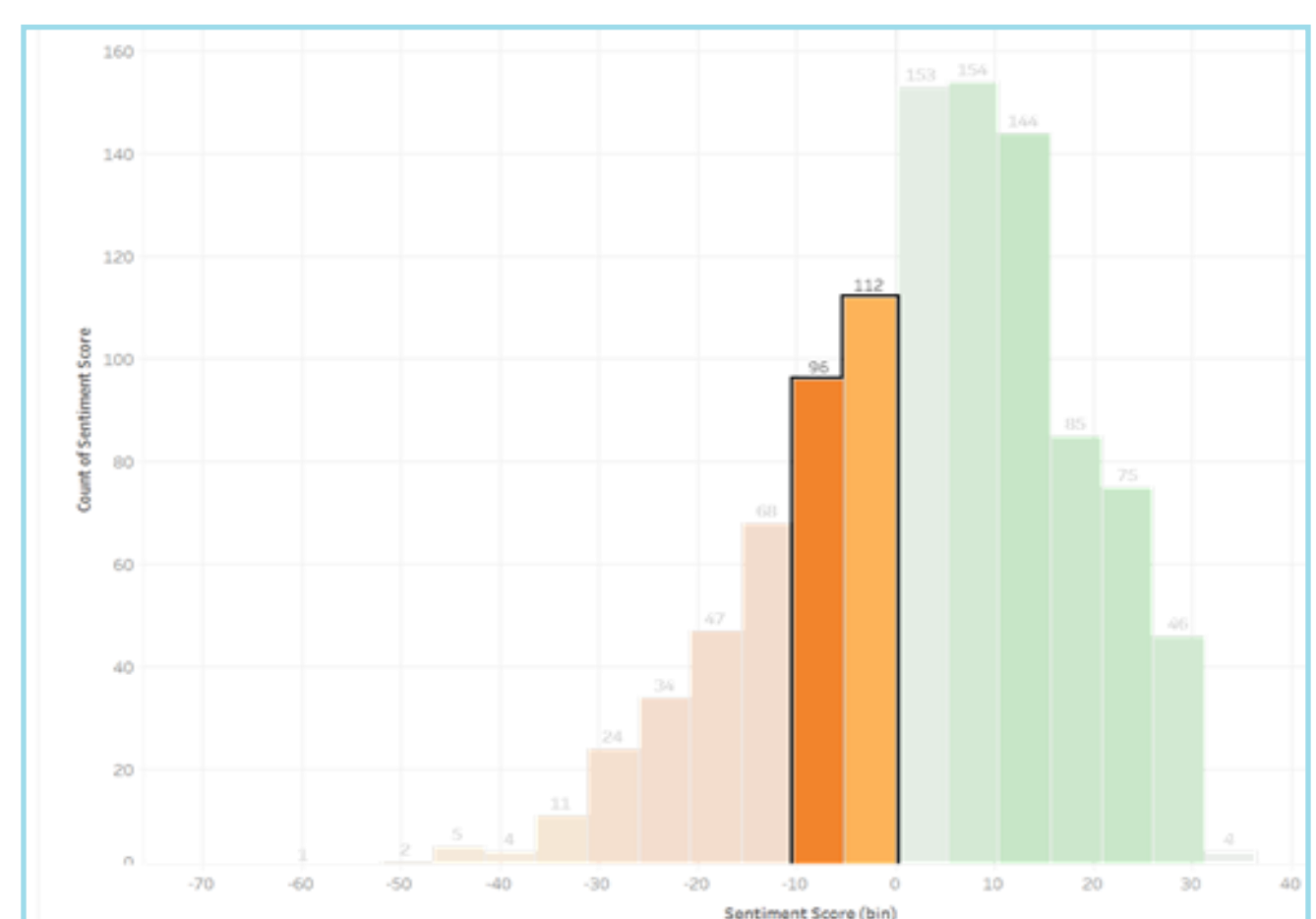
Background Coyotes and raccoons are highly adaptable species that become increasingly urbanized with the incentive of free meals in the form of unsecured trash and loose pets. Members of the Tacoma community have grown concerned about the mounting number of negative interactions with these predators. The Grit City Carnivore Project (GCCP) was commissioned to deescalate this toxic relationship within Tacoma’s “Four Quadrants” and improve the coexistence between the species. The GCCP started by assessing a baseline of public perception towards urban carnivores by performing a survey.

Challenge(s)

- Limited Resources** – How can the GCCP maximize efficacy to defuse the conflict between man and beast.
- Baseline Data** — Survey responses were slow to trickle in and are geographically clustered in the NW quadrant of Tacoma.
- Key Performance Indicators** — The initial plan to measure performance through re-administering surveys would likely return low fidelity data, especially in extremely negative opinion groups. No mechanism for gauging performance exists.

Solution #1 - Targeted Audience Outreach

To optimize man-hours we built a **Cloud-Hosted Tool** leveraging a **Predictive Analytical Algorithm** able to identify regional and demographic “Hot Spots.” It is derived from survey **Sentiment Scoring** in parallel with **Machine Learning** enabled **Two-Class Bagged Trees** and **K-Means Clustering** analyses.



Solution #2 - Social Media Sentiment Analysis

Working with local community groups, we created an **Anonymized Database of Social Media Postings** to track interactions and opinions about urban carnivores. From this baseline, the GCCP can perform **Trend Analysis** in high contact geographies, animal behavior and overall community **Sentiment** from which to assess the program’s progress towards its goal of deconfliction.



Analysis in high contact geographies, animal behavior and overall community **Sentiment** from which to assess the program’s progress towards its goal of deconfliction.

The current system uses **Custom Python Coding** and a **Tailored Lexicon** to the nuances of human/coyote interaction in the Pacific Northwest.