Syracuse University
School of Information Studies

IST 737: VISUAL ANALYTIC DASHBOARDS

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What, How, New York Drives?

NEW YORK STATE DEPARTMENT OF MOTOR VEHICLES

GROUP **2**

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1. Project overview

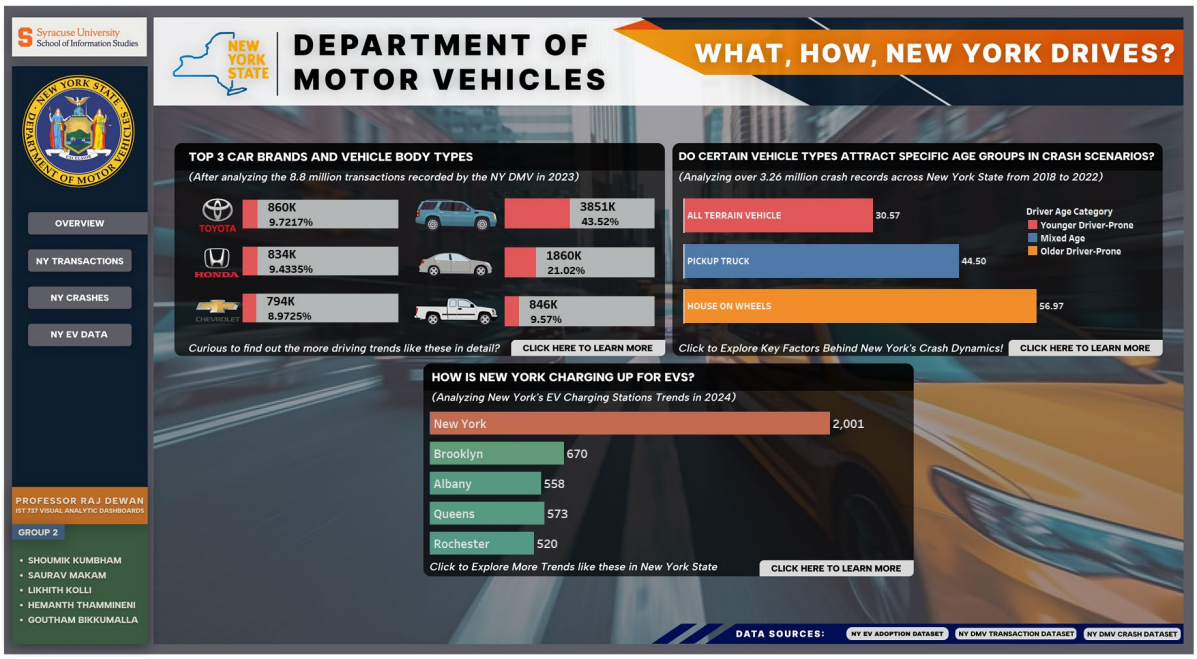
As a team, we developed this Tableau project, *"What, How, New York Drives?"*, to analyze and present insights into New York State's transportation dynamics. For analyzing *what* New York drives, we leveraged 8.8 million vehicle transaction records from 2023, providing insights into the most popular vehicle brands, body types, and transaction trends. To explore *how* New York drives, we analyzed 3.26 million crash records from 2018 to 2022, examining crash patterns, driver age groups, and vehicle categories associated with safety outcomes. Lastly, to understand *how* New York is adopting electric vehicles (EVs), we utilized data on EV charging stations across the state, uncovering trends in infrastructure development and adoption by region. Through these datasets, our interactive dashboards provide a comprehensive view of New York's transportation trends, supporting informed decision-making for policymakers, transportation agencies, and the public.

2. Data Sources

- ✓ **What New York Drives:** Data for vehicle registrations and transactions in New York State was sourced from the Department of Motor Vehicles Registration Transactions Dataset. This dataset includes information on 8.8 million transactions from 2023.
  Link to Dataset
- ✓ **How New York Drives:** Data on motor vehicle crashes and associated vehicle information for the years 2018 to 2022 was sourced from the Motor Vehicle Crashes - Vehicle Information Dataset. This dataset provides insights into 3.26M crash records.
  Link to Dataset
- ✓ **EV Adoption in New York**: Data on electric vehicle (EV) charging stations across New York State was sourced from the Electric Vehicle Charging Stations Dataset. This dataset highlights infra trends and EV adoption patterns across different regions.
  Link to Dataset

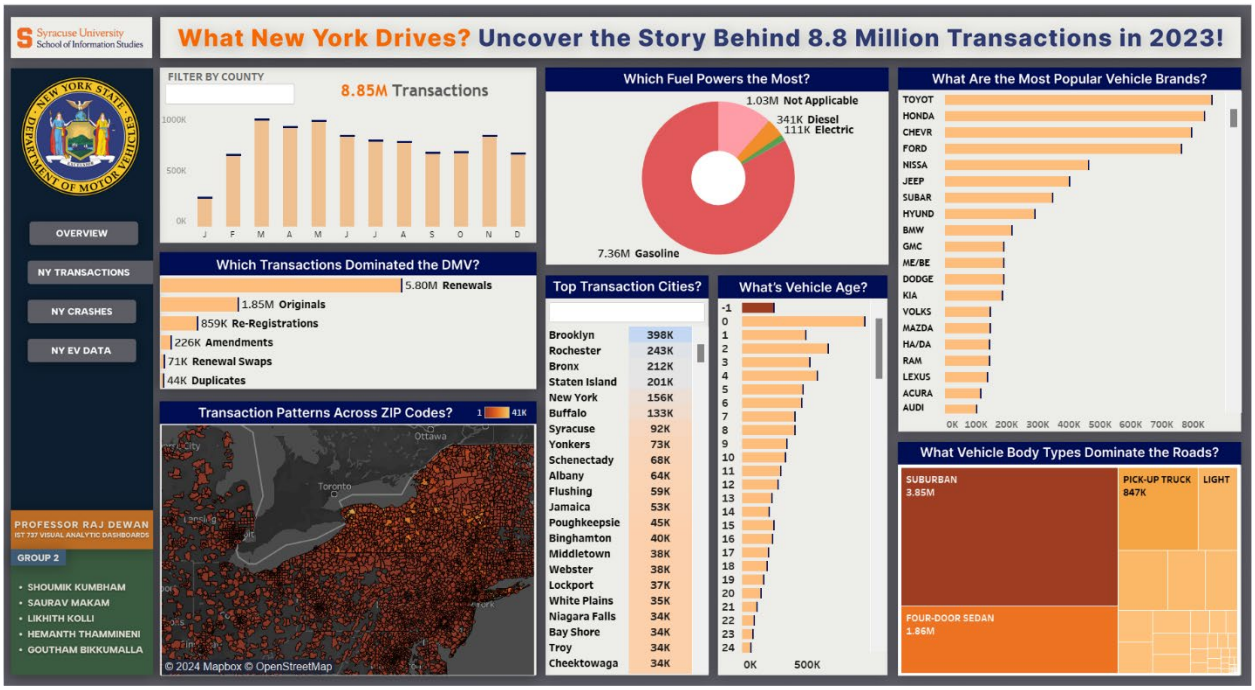
3. Insights from Dashboards

OVERVIEW DASHBOARD



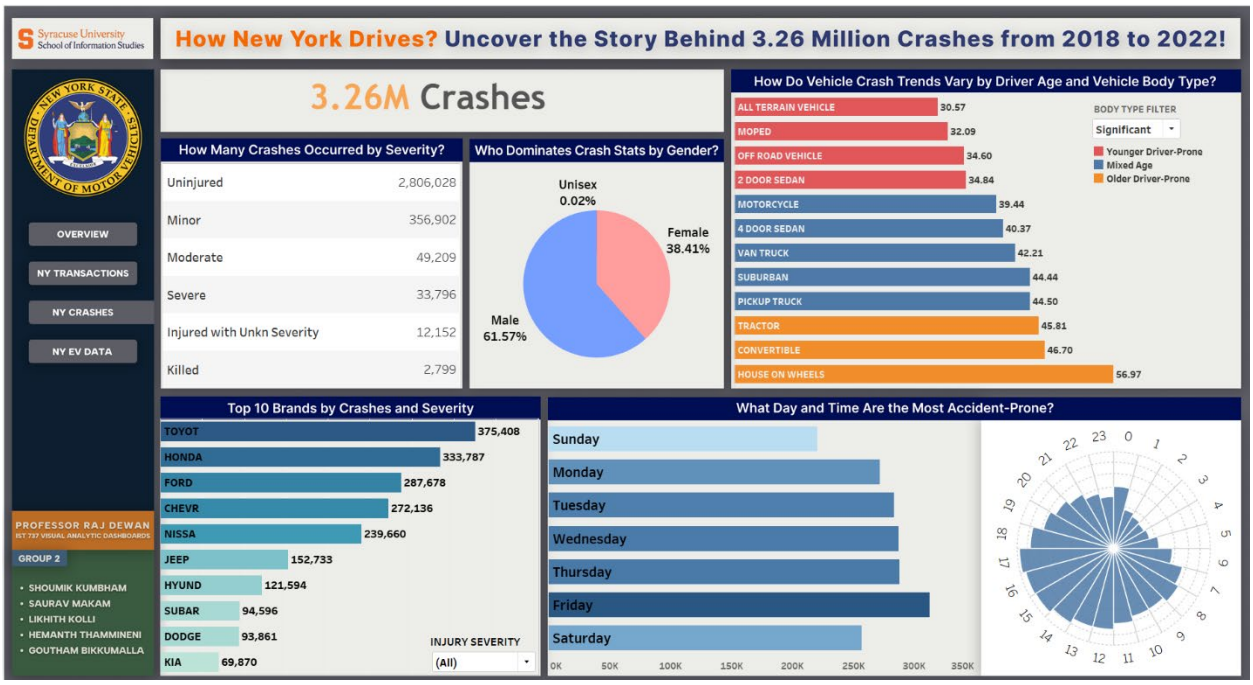
The opening dashboard **introduces our project**, "What, How, New York Drives?", created as part of the IST 737 Visual Analytic Dashboards course under the guidance of Professor Raj Dewan, with **group member details** and **dataset links** displayed on the dashboard. It **pumps up curiosity** by uncovering compelling insights into the state's most popular vehicles, crash dynamics, and the rapid growth of EV adoption, inviting you to dive deeper into what drives New York and shapes its future.

WHAT NEW YORK DRIVES?



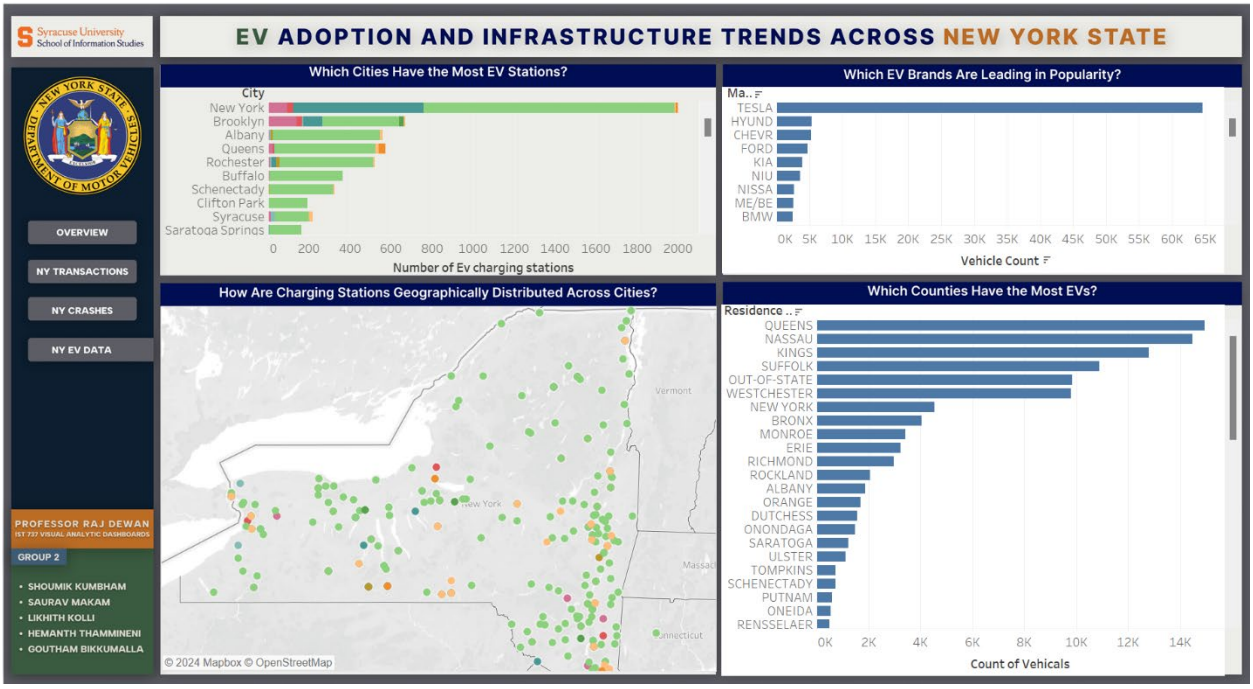
This dashboard provides an in-depth analysis of 8.85 million DMV transactions recorded in 2023, uncovering fascinating trends about New York's vehicle preferences and transactional patterns. It highlights the dominance of gasoline-powered vehicles, reveals the most popular brands like Toyota, Honda, and Chevrolet, and examines the age distribution of vehicles on the road. The dashboard also breaks down transaction types, such as renewals and re-registrations, maps transaction density across ZIP codes, and showcases the most common vehicle body types, including Suburbans and four-door sedans. Packed with insights, this dashboard invites viewers to explore the factors shaping what New Yorkers drive.

HOW NEW YORK DRIVES?



This dashboard analyzes 3.26 million crash records from 2018 to 2022, uncovering key insights into road safety trends across New York. It provides an overview of crash severity, gender distribution, and how driver age and vehicle characteristics influence crash dynamics. The visualizations also explore patterns in crash occurrences by day and time, offering a detailed perspective on when and how crashes happen, encouraging viewers to dive deeper into the factors impacting road safety.

HOW NEW YORK IS ADOPTING TO EV



This dashboard explores the growth of electric vehicle (EV) adoption and infrastructure across New York State. It highlights the cities with the highest number of EV charging stations, identifies the most popular EV brands, and examines the distribution of charging stations geographically. Additionally, it provides insights into which counties have the largest number of EVs, offering a comprehensive view of New York's transition toward sustainable transportation. This visualization invites viewers to delve into the patterns driving the state's EV revolution.