# A person in a suit and tie Description automatically generatedAlex Granato

## Transportation Modeler

**Years of Experience**: 2

**Education**:

MS, Statistics-Analytics, University of Illinois Urbana-Champaign (2022)

BS, Civil Engineering, Ohio State University (2021)

Mr. Granato is a Transportation Modeler with Corradino’s Transportation Systems Planning group. He has experience in travel demand modeling, data fusion and statistical analysis, and GIS analytics. He is a proficient user of a variety of software programs including TransCAD/GISDK, TransModeler, R/RStudio/RShiny, Python, SAS, SQL, HTML/CSS, JavaScript and ArcGIS/ArcGIS Pro.

* **Terre Haute MPO 2050 Metropolitan Transportation Plan.** Modeler. Mr. Granato is a key modeler responsible for a completely new model development for the MPO. He developed zonal socioeconomic data using 2020 Census and 2023 Data Axle employment data, model network, and external traffic estimation. The model has a 2022 Base Year and a 2050 Future Year to support the development of the new Metropolitan Plan.
* **KYTC I-64 Connected/Autonomous Vehicle (C/AV) Lane Study.** Modeler. Mr. Granato conducted multiple model runs and traffic analyses of 10 C/AV penetration scenarios in 2045, using the Kentucky Statewide Traffic Model (KYSTM). The analyses include forecasts of traffic flow (by human-driven vehicles and C/AV) and C/AV percentage, and evaluation of congestions (v/c ratio) along the 70-mile I-64 corridor from Louisville to Lexington, with and without CAV-only lanes.
* **Town of Brownsburg I-74 Interstate Access.** Modeler. Mr. Granato co-collected signal optimization data for the Town of Brownsburg between SR 267 and Jeff Gordon Blvd Interchanges. He examined each roadway, imminent development project, and refined TAZ within the model, and integrated traffic counts from MioVision and the Traffic Count Database System (TCDS). Each microsimulation run involved the town’s AM and PM peak hours.
* **Lebanon Leap Traffic Modeling.** Modeler. Like Town of Brownsburg above, Mr. Granato co-collected signal optimization data for the Lebanon Leap data. Each roadway, imminent construction project, and refined TAZ remain accounted for. Each microsimulation run involved the town’s AM and PM peak hours and will describe changes in traffic across the 2020’s due to the construction.
* **Illinois RITIS OD Data Analysis**. Modeler. Mr. Granato extracted OD trip data for the Quad-Cities MPO from the Regional Integrated Transportation Information System (RITIS) Trip Analytics module. He evaluated the RITIS OD data by comparing to ODs from the Illinois Statewide Travel Demand Model (ILSTDM).
* **INDOT’s Traffic Forecasting Tool (TFT):** Mr. Granato refined a Shiny app for maps of roadway traffic across Indiana. He evolved the tool to quantify data from the Indiana Statewide Travel Demand Model (ISTDM) and historical traffic counts into several tables of past data and future predictions.
* **Indiana Statewide Corridor Planning Study.** Modeler. Mr. Granato has conducted model runs for over 100 corridor segments across Indiana. Each model was designed to assess equity and accessibility, or percentage of work-based trips.