USDOT Safety Data Initiative
Project Title: Accelerating Rural Road Safety Using AI to Unlock Predictive Insights from Videolog Data

Table with List of Deliverables:

Requirement	**Deliverable(s)**
9.G.I - The Recipient shall provide OST-P with documentation of the work performed and end products in accordance with the terms of the executed Cooperative Agreement and the Data Management Plan.	The software and the produced guardrail and utility pole models can be found from the public github repo. The github repo contains all the code and scripts as well as a README file that includes detailed information on how to download and use the produced models along with how to set up and run the annotation tool and the detailed steps to follow in order to run the active learning pipeline. The database sql dump file along with all the annotation data we collected through the active learning process for training the guardrail and utility pole models are currently backed up and archived at RENCI.
9.G.I.1 - The Final Report and Data Management Plan shall be available to the public.	1) 10 page final report draft 2) Data Management Plan is in NCDOT teams.
9.G.II.1 - Datasets to be provided to OST-P as described in Section 9 Subpart G III.	Models are available to be downloaded from github repo. See our github repo README file for detailed instructions on how to download and use the models.
9.G.II.2 - The final Data Management Plan.	Previously submitted (see attached)
9.G.II.3 - A Readme.txt file which includes the data dictionary and other important information so that future users of the dataset(s) provided to OST-P can understand the dataset without necessarily referencing the Final Report.	README file can be found here: https://github.com/RENCI/ncdot-road-safety/blob/master/README.md
9.G.II.4 - A metadata file in DCAT-US Schema v1.1 (Project Open Data Metadata Schema) json.	See attached metadata file named DOTSDIProjectMetadata.json.
9.G.II.5 - Codes and scripts to be provided to OST-P as described in Section 9 Subpart G III.	All code and scripts are available here: https://github.com/RENCI/ncdot-road-safety
9.G.II.6 - Supporting tables and information.	This deliverable is covered under the various other components provided in supporting documents and links.
9.G.III.1 - End Products and Documentation to be made publicly available	All code, scripts, and documentation are made publicly available here: https://github.com/RENCI/ncdot-road-safety
9.G.III.1.a - The software, methods, and both the source and object codes that are used in the execution of the tool to annotate roadway video log data under this Cooperative Agreement. The information shall be sufficiently documented so that a USDOT employee or designee can run the accompanying software, methods, and codes and receive the expected resulting output, and replicate the safety tool. The deployed software system shall be hosted on a publicly available web domain. The source code and documentation shall be hosted in a public repository and made available under an open source (MIT) license.	https://github.com/RENCI/ncdot-road-safety is made available under the MIT license.
9.G.III.1.b - Database of reliably annotated rural roadway data. The database will be hosted at the Renaissance Computing Institute (RENCI), and instructions on accessing the database will be posted on a publicly available web domain.	The guardrail and utility pole model predictions associated with mileposts in NCDOT LRS (Linear Reference System) for all 14 divisions in NC have been provided to NCDOT for use in their safety risk assessment and can be downloaded from the RENCI FTP server. Our model prediction datasets are in csv format with each row containing the model prediction information for a specific geographic location identified by routes, county ids, and mileposts in

	NCDOT LRS aimed at being easily ingested into the NCDOT GIS system. The database sql dump file can be easily loaded into the annotation tool database using a server database ingestion command. The annotation data we collected through the active learning process were dumped into files in the csv format that are self-explanatory and can be programmatically analyzed or processed by a script to prepare training data. As such, these data deliverables do not have associated linked JSON-LD schema but formatted in the self-explanatory csv format or the specialized database sql dump format for easy ingestion into our annotation tool.
9.G.III.1.c - A detailed description of the methodological approach extracting the roadside features, including but not limited to details on the methods employed, applicable code and AI modeling runs, and how NCDOT validated the predictive capabilities of the model(s). This information shall be made available in a public repository (e.g., GitHub, modelzoo, etc.).	https://github.com/RENCI/ncdot-road-safety/blob/master/README.md
9.G.IV - In accordance with the requirements of 17 U.S.C. 201 and 35 U.S.C. Chapter 18, the Recipient shall retain ownership of any pre-existing intellectual property used intellectual property created in the conduct of this Cooperative Agreement. The Recipient shall provide USDOT a worldwide, non-exclusive, sub-licensable, fully paid-up, royalty-free, perpetual, and irrevocable license granting USDOT the right to use, reproduce, distribute, modify, create derivative works, publicly (and digitally) perform and/or display, the Data, as well as to make or have made, and import any developed or such discovered intellectual property for Government purposes, including the right to provide such intellectual property to State and local government partners for their use in evaluating and potentially resolving critical transportation safety issues for all Documentation and End Products described in Section 9 Subpart G III. Licenses shall be at least equal to the rights afforded the federal government under the standard rights provisions found in 2 CFR 200.315 for all Data, as herein defined, and shall include the above rights under any copyright or patent to any software used in or developed in satisfaction of this Cooperative Agreement.	All code, documentation, and other information is available at https://github.com/RENCI/ncdot-road-safety under the MIT license.