Colleen Collins* (colleencollins89@gmail.com), Sarah Glidden, Katherine Johnston, Grace Rogers, Hasan Hamdan and Celes Woodruff. Automated Identification of Landslides. Preliminary report.

Landslides occur worldwide and pose threats to property, transportation, and people. Identification of known landslide sites can aid in the creation of hazard maps to inform land-use policies. Digital elevation models (DEMs) created from lidar data make it possible to identify geologic or geomorphic features without the need to visit sites directly. Geologists can use these DEMS to visually identify landslides, but this is a very time-consuming process.

Our project lays the foundation for the creation and implementation of an automated landslide identification tool. We use elevation data collected from three regions in Virginia to create logistic models that identify the presence of a debris flow landslide. In this presentation, we will cover the process of collecting and cleaning the data, identifying variables of interest, and creating and testing logistic models. We will then discuss the limitations of our work and the next steps for this project. (Received September 17, 2019)