The article expounded upon a bunch of new statistical and machine learning methodologies to produce landslide susceptibility mapping via a new technique called GIS-based logistic regression. The use of this particular type of logistic regression allowed more inclusivity of certain types of assumptions in the overall calculation, as one of the fundamental challenges for the landslide problem was the inclusion of a wide variety of factors. The authors concluded that, from their research, the road network is one of the most important factors in determining the probability of a landslide, with aspect and slope gradient playing a more significant contribution than elevation.

I had several questions about this paper, such as why there was a tendency to choose discriminative models (in this case, logistic regression) compared to generative ones like Naïve Bayes.

Excellent analysis Gokul. I would posit that, although the road network was an important factor, there were other factors that were also statistically significant- particularly the aspect and slope gradient. Logistic regression was definitely the right methodology to use in this problem, as it allowed for the inclusion of several other factors into the calculation that other methods would’ve dismissed

Great summary Vaibhavi. While several factors definitely played a role in the final calculation, slope gradient and aspect were found to be more statistically significant than a factor such as elevation. You are absolutely correct as to the utility of logistic regression, as it allowed the authors to factor in all these other variables into the final calculation, thus yielding a more accurate result.