



TEAM Mu 'n I: Direction Detection

Christopher Stith, Katja Vassilev, Benjamin Riley, Lukas Scheiwiller, Chinmaya Kausik

With Distinction

The goal of this project is to determine the direction of incoming neutrinos detected by the IceCube neutrino observatory and posted on Kaggle. The IceCube detector indirectly observes high-energy neutrinos from incoming cosmic radiation. IceCube wants to use data science to estimate the direction to feed into their software which calculates the precise direction. We used several linear regression models, including tensorflow, before training a convolutional and fully connected NN in pytorch. These networks were trained using features provided by IceCube and additional features used in the regression.

