

The first programme that I did with Inspirit AI was a 10-day long course, two hours daily, that entailed learning coding, modelling, and receiving advice for future college applications. We learned about neural networks, classification, regression, sampling techniques, data science techniques, and general coding, after which we broke off into smaller mini projects to test and apply our skills. I was part of the 'searching for exoplanets' project, where we used sampling and classification techniques to determine whether or not the data we received was from an exoplanet based on the flux rate and characteristics. We started out with using manual folding, and analysing this with confusion matrices and simple classifiers, after which we explored using data augmentation techniques like smote sampling to make the data easier and less biased to use and analyse. We finally finished off with experimenting with using neural networks. All the methods were extremely successful.

My research paper is about building an AI model with a test/train split on biochemical data conducted in vivo on lab rats that will predict the effects of these chemicals on the specific organ that the training data was tested on. My main goal is to create a model that would accurately predict these results because I want to reduce the amount of animal testing and animal cruelty that goes on in cosmetic testing. I care deeply about animals and believe it's highly unethical and inconsiderate to be subjecting innocent, unwilling, and undeserving animals to extremely isolative, dangerous, and detrimental conditions when technology has come so far.