

Our journey to develop a robust mushroom classification system began with a comprehensive search for a dataset to train our model. However, upon closer examination, we encountered several challenges inherent in the selected dataset. Chief among these was a significant class imbalance, where certain mushroom species were underrepresented. With the dataset curated and class imbalance addressed through careful selection, our attention turned to preprocessing the images. Moreover, during the preprocessing stage, we encountered a subset of images that were corrupted or of insufficient quality for training. Having meticulously prepared the dataset, our next crucial step was model selection and architecture design. Recognizing the need for a lightweight yet powerful architecture, we selected the EfficientNetB0 as our backbone. With the EfficientNetB0 architecture selected as our backbone, we proceeded to fine-tune the model using transfer learning. In summary, our methodology encompassed a comprehensive approach to dataset acquisition, preprocessing, and model development.