

## **Sample summary of two papers:**

COVID-19 severely disrupted global economies, societies, and education systems, with unemployment and reduced job postings posing major challenges. In Bangladesh, unemployment in certain sectors became alarming, while the IT-Software industry emerged as a key area of opportunity. The pandemic accelerated the adoption of digital systems such as online education and remote work, underscoring the need for technological skills. This paper examines the global employment impact of COVID-19, with emphasis on the IT sector and Bangladesh, analyzing job postings from bdjobs.com to identify employer-required skills. Findings provide guidance for students and job seekers to align with IT-Software market demands during and after the pandemic.

Shamrat, F M Javed Mehedi et al. [1] proposed fine tuned convolutional neural network and gives its name as AlzheimerNet. This model can classify five stages of alzheimer's diseases: NC, SMC, MCI, EMCI, LMCI and AD. They experiment on five existing models VGG16, MobileNetV2, AlexNet, ResNet50 and InceptionV3, trained them and achieve test accuracy 78.84%, 86.85%, 78.87%, 80.98%, 98.31% accordingly. Among five models since InceptionV3 achieve highest accuracy authors further modified this model to create AlzheimerNet. Authors used 23508 Alzahimer's Diseases Neuroimaging Initiative (ADNI) dataset with six classes. To improve image quality, in image preprocessing they used three techniques image normalization, image enhancement and data augmentation. Image enhancement includes Contrast Limited Adaptive Histogram Equalization (CLAHE) and Green Fire Blue filter methods. Before selecting Green Fire Blue filter method authors applied several filtering methods like Blue Orange Icb, 16 colors, 6 Shades, Cyan hot. Among them authors selected Green Fire Blue because it gives highest accuracy. Data augmentation include flip, rotate and translate methods. After data augmentation dataset expand into 60000 images which include NC-10000, SMC-10000, MCI-10000, EMCI 10000, LMCI-10000 and AD-10000 images. In proposed model authors used RMSProp optimizer, GlobalAveragePooling2D, learning rate 0.00001, used activation function in hidden layer is relu, activation function in last layer is softmax. The proposed model outperforms than other pretrained models with accuracy 98.68%. The proposed model provide 98.68% recall, 99.74% specificity, 98.68% f1 score and so on. As future work authors suggested to use hybrid model on ADNI fMRI and PET datasets.