Eye Tracker to Detect Reader Daydreaming on Laptop

1) **Dataset:** MPIIGaze https://paperswithcode.com/dataset/mpiigaze
   It contains 213,659 images collected from 15 participants during natural everyday laptop use over more than three months. It has a large variability in appearance and illumination. Chosen for how robust it is.

2) a. Important features to detect zoning out from a person's eye movement: size of pupil, duration spent looking at fixed point in space, eye movement over time, eyebrows position…
   b. Using supervised machine learning, the plan is to use the dataset to train a model to detect any user zoning out while using their laptop be it for reading, looking at photos, watching videos…
   c. Use precision-recall/confusion matrix and accuracy to assess model's success rate in classifying zoning out versus normal eye movement when engaging with content on laptop

3) **Application:** Make a simple Chrome extension that "pings" the user when caught daydreaming/zoning out by monitoring user's eyes via laptop's webcam to get them to focus again. Bonus if time permits: Make a sarcastic bot that sends a text notification to the user's screen to pressure the user to quit daydreaming.