**Term End Project Milestone-1**

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**Predict Autism Spectrum Disorder (ASD)**

Autism spectrum disorder (ASD) is a developmental disability caused by differences in the brain. People with ASD often have problems with social communication and interaction, and restricted or repetitive behaviors or interests. People with ASD may also have different ways of learning, moving, or paying attention. It is important to note that some people without ASD might also have some of these symptoms. But for people with ASD, these characteristics can make life very challenging.

**Social Communication and Interaction Skills**

Social communication and interaction skills can be challenging for people with ASD. Examples of social communication and social interaction characteristics related to ASD can include:

* Avoids or does not keep eye contact
* Does not respond to name by 9 months of age
* Does not show facial expressions like happy, sad, angry, and surprised by 9 months of age
* Does not play simple interactive games like pat-a-cake by 12 months of age
* Uses few or no gestures by 12 months of age (for example, does not wave goodbye)
* Does not share interests with others by 15 months of age (for example, shows you an object that they like)
* Does not point to show you something interesting by 18 months of age
* Does not notice when others are hurt or upset by 24 months of age
* Does not notice other children and join them in play by 36 months of age
* Does not pretend to be something else, like a teacher or superhero, during play by 48 months of age
* Does not sing, dance, or act for you by 60 months of age

**Restricted or Repetitive Behaviors and Interests**

People with ASD have behaviors or interests that can seem unusual. These behaviors or interests set ASD apart from conditions defined by problems with social communication and interaction only.

Examples of restricted or repetitive behaviors and interests related to ASD can include:

* Lines up toys or other objects and gets upset when order is changed
* Repeats words or phrases over and over (called echolalia)
* Plays with toys the same way every time
* Is focused on parts of objects (for example, wheels)
* Gets upset by minor changes
* Has obsessive interests
* Must follow certain routines
* Flaps hands, rocks body, or spins self in circles
* Has unusual reactions to the way things sound, smell, taste, look, or feel

**Other Related Characteristics of ASD**

Most people with ASD have other related characteristics. These might include:

1. Delayed language skills
2. Delayed movement skills
3. Delayed cognitive or learning skills
4. Hyperactive, impulsive, and/or inattentive behavior
5. Epilepsy or seizure disorder
6. Unusual eating and sleeping habits
7. Gastrointestinal issues (for example, constipation)
8. Unusual mood or emotional reactions
9. Anxiety, stress, or excessive worry
10. Lack of fear or more fear than expected

**Conclusion**

**Questions I intent to answer at the end:**

* + What does the analysis/model building tell you?
  + Is this model ready to be deployed?
  + What are your recommendations?
  + What are some of the potential challenges or additional opportunities that still need to be explored?