

Model Development Phase Template

Date	15 JULY 2024
Team ID	740075
Project Title	Detection Of Autistic Spectrum Disorder: Classification
Maximum Marks	5 Marks

Feature Selection Report Template

In the forthcoming update, each feature will be accompanied by a brief description. Users will indicate whether it's selected or not, providing reasoning for their decision. This process will streamline decision-making and enhance transparency in feature selection.

Feature	Description	Selected (Yes/No)	Reasoning
Clinical Features	. Age of Diagnosis: The age at which ASD was diagnosed.	YES	Symptom Severity: A score indicating the severity of ASD symptoms. Behavioral Observations: Scores from behavioral assessments, such as the Autism Behavior Checklist (ABC).
Neuroimaging Features	Brain Structure Volumes: Volumes of brain structures, such as the amygdala	Yes	Functional Connectivity Metrics: Measures of brain connectivity, such as default mode network (DMN) activity.

	and hippocampus		Brain Activity Patterns: EEG frequency bands, such as alpha, beta, and theta waves.
Behavioral Features	Social Skills Assessments: Scores from social skills assessments, such as the Social Responsiveness Scale (SRS) .	Yes	Communication Skills Assessments: Scores from communication skills assessments, such as the Communication and Symbolic Behavior Scales (CSBS) . Repetitive Behavior Assessments: Scores from repetitive behavior assessments, such as the Repetitive Behavior Scale (RBS) .
Genetic Features	Genetic Variant Frequencies: Frequencies of specific genetic variants, such as SNPs and CNVs	Yes	Gene Expression Levels: Levels of gene expression, measured through RNA sequencing.
Social Media and Online Features	Social Media Usage Patterns: Frequency and duration of social media use.	Yes	Online Behavior Patterns: Search queries, browsing history, and other online behaviors.
Environmental Features	Exposure to Environmental Toxins: Exposure to pesticides, heavy metals, and other toxins	Yes	Nutrition and Dietary Patterns: Food preferences, nutrient intake, and other dietary metrics.

Wearable Device Features	Physical Activity Levels: Step count, exercise intensity, and other physical activity metrics		Sleep Patterns: Sleep duration, quality, and other sleep metrics.
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