**Semiconductor Manufacturing Pass/Fail Classification**

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*Abstract*— To be added

Keywords— Supervised Machine Learning, Classification

# Introduction

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# Methods

The methos used to develop model…

## Splitting Strategy

* 80/20 Other/Test

## Data Preprocessing

* Univariate value features
* Missing data
* Standardization
* Feature Selection

## Hyperparameter Tuning & Cross-Validation

* Stratified K Fold (k=4)

## Model Pipeline with GridSearchCV

To be added…

* to be added

## PCA analysis

* ..to be added

To be added…

# Results

This will include the results for different models and …

## ML Model Performance

*.. figs*

## Global Featrure Importance

## SHAP Local Feature Importance

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# Outlook

Model improvement balababla

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