

## Welcome to GitHub Pages

You can use the [editor on GitHub](https://github.com/favourumeh/Portfolio/edit/gh-pages/index.md) to maintain and preview the content for your website in Markdown files.

Whenever you commit to this repository, GitHub Pages will run [Jekyll](https://jekyllrb.com/) to rebuild the pages in your site, from the content in your Markdown files.

### Markdown

Markdown is a lightweight and easy-to-use syntax for styling your writing. It includes conventions for

```markdown

Syntax highlighted code block

# Header 1

## Header 2

### Header 3

- Bulleted

- List

1. Numbered

2. List

\*\*Bold\*\* and \_Italic\_ and `Code` text

[Link](url) and ![Image](src)

```

For more details see [GitHub Flavored Markdown](https://guides.github.com/features/mastering-markdown/).

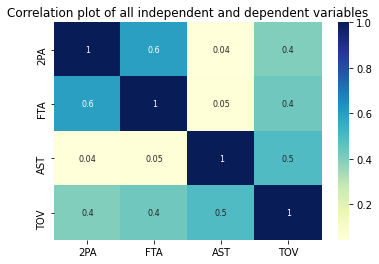
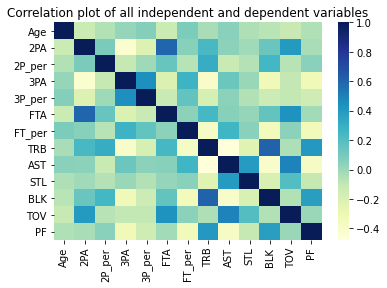
### Jekyll Themes

Your Pages site will use the layout and styles from the Jekyll theme you have selected in your [repository settings](https://github.com/favourumeh/Portfolio/settings/pages). The name of this theme is saved in the Jekyll `\_config.yml` configuration file.

### Support or Contact

Having trouble with Pages? Check out our [documentation](https://docs.github.com/categories/github-pages-basics/) or [contact support](https://support.github.com/contact) and we’ll help you sort it out.

Correlation heatmaps showing the transition from 12 numeric independent variables to 3



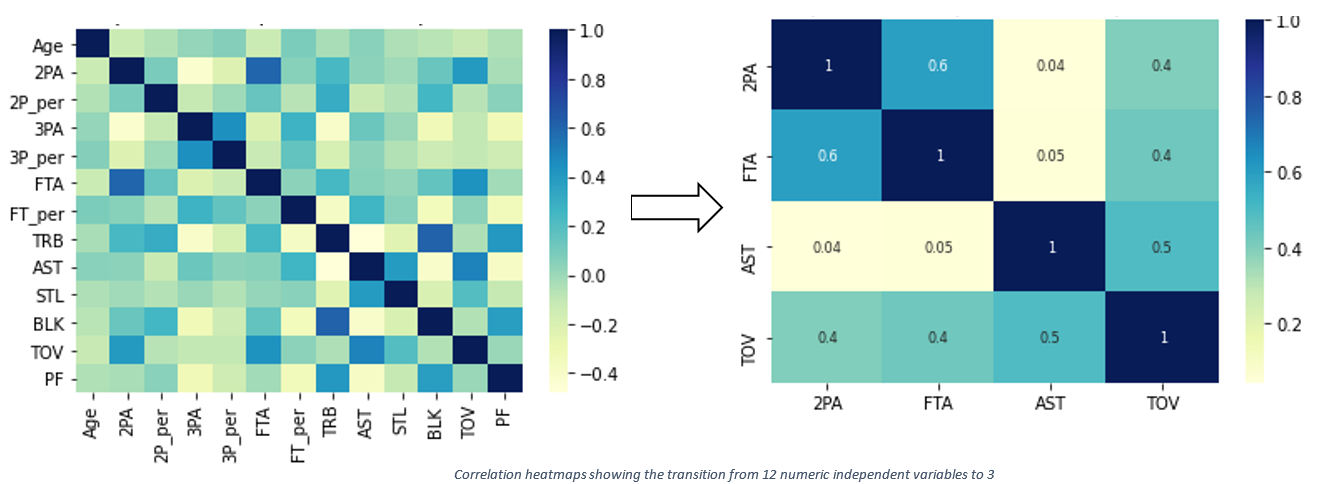
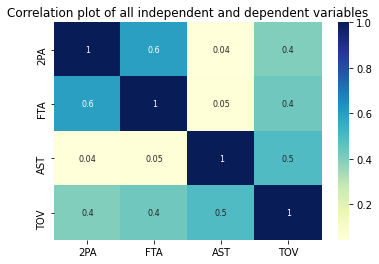
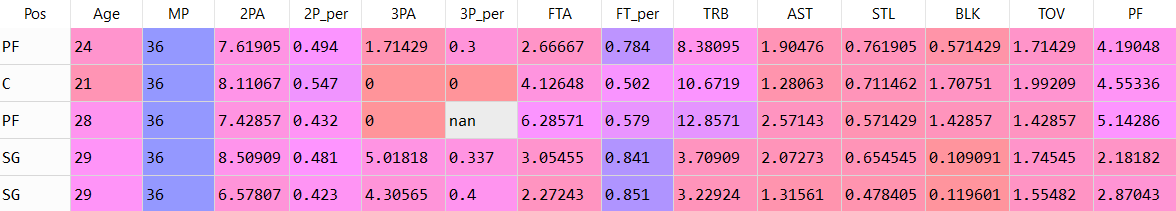
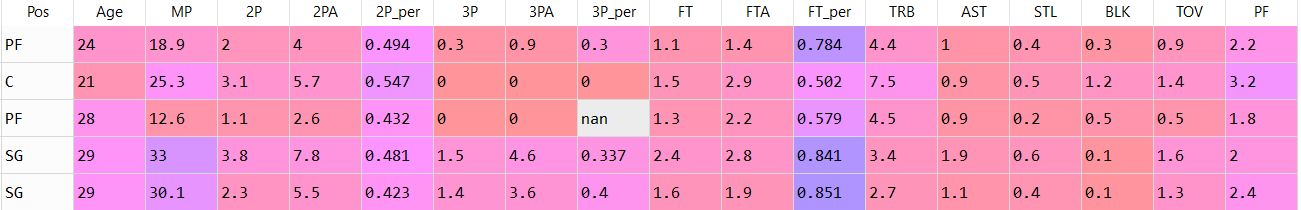
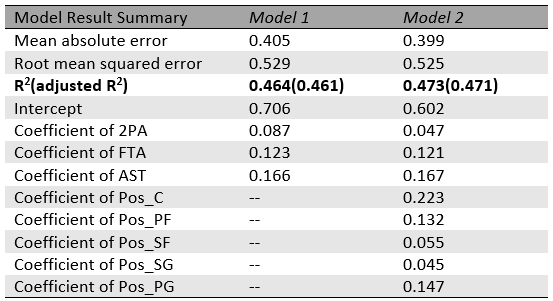
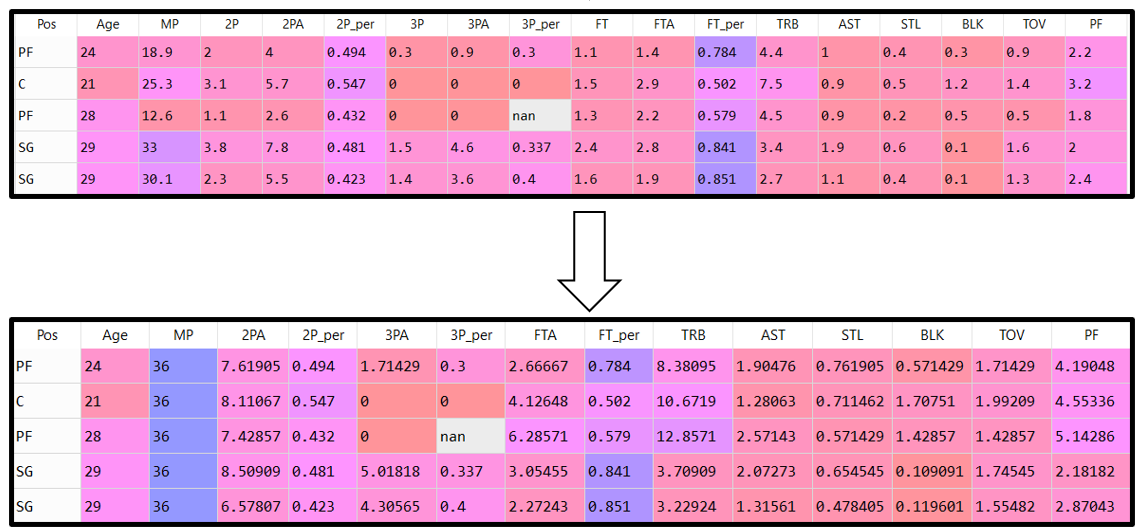
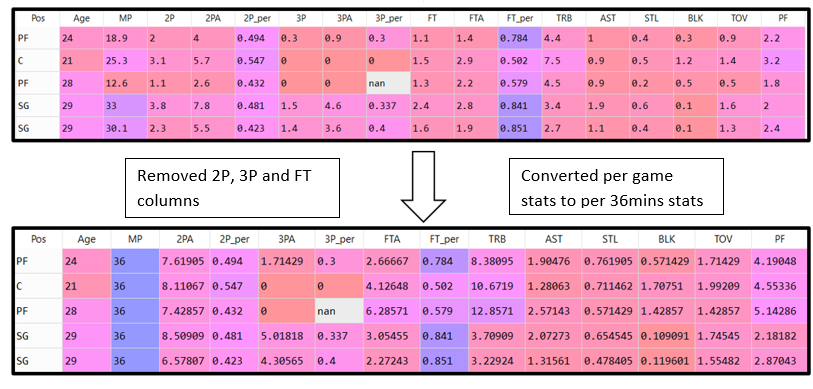


Figure 1: Correlation heatmaps showing the transition from 12 numeric independent variables to 3



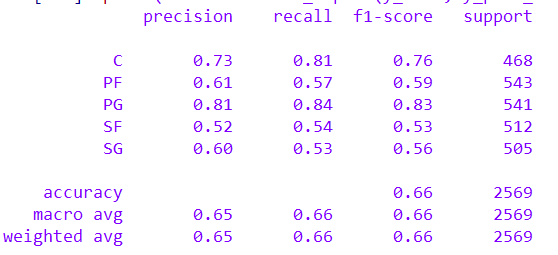


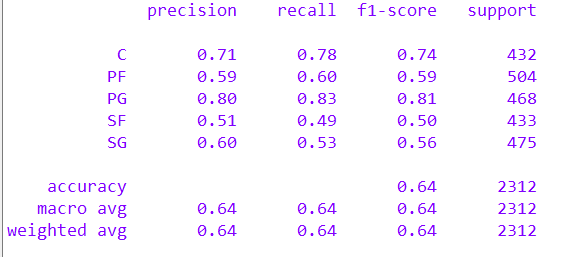
 

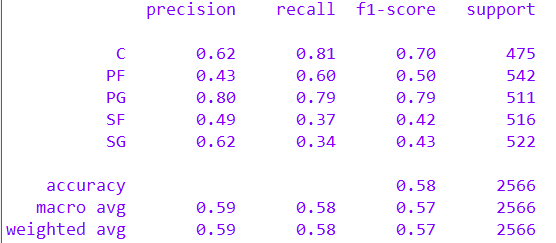
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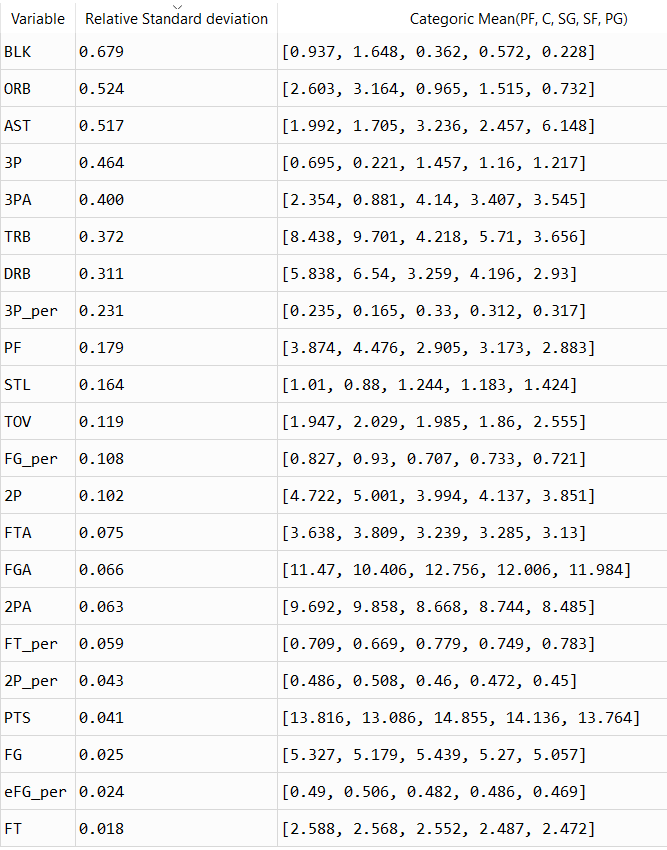
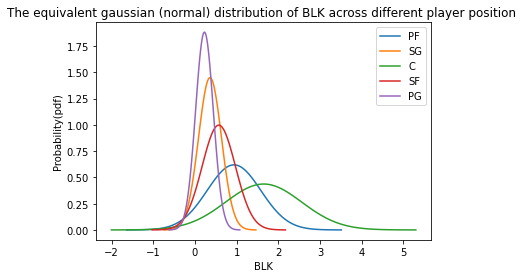
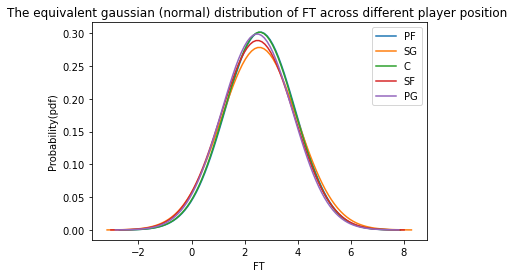
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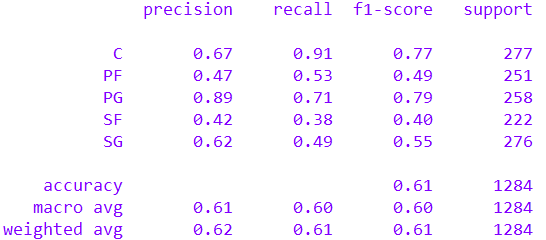
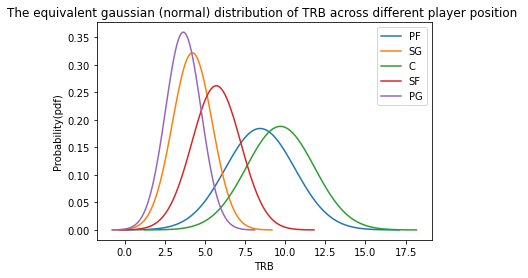
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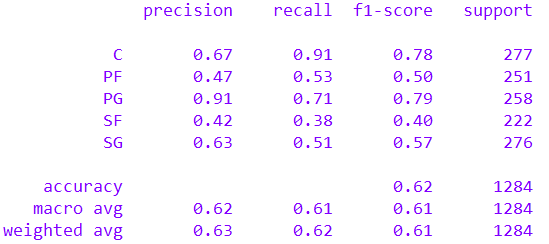
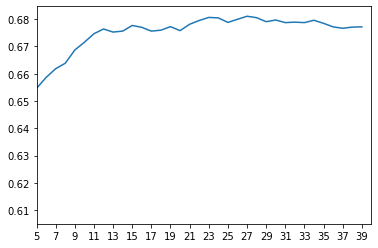


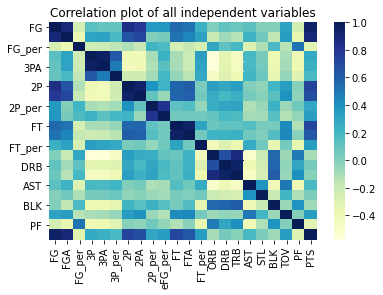
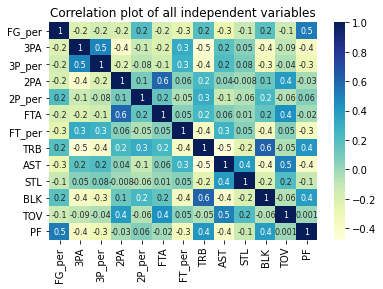


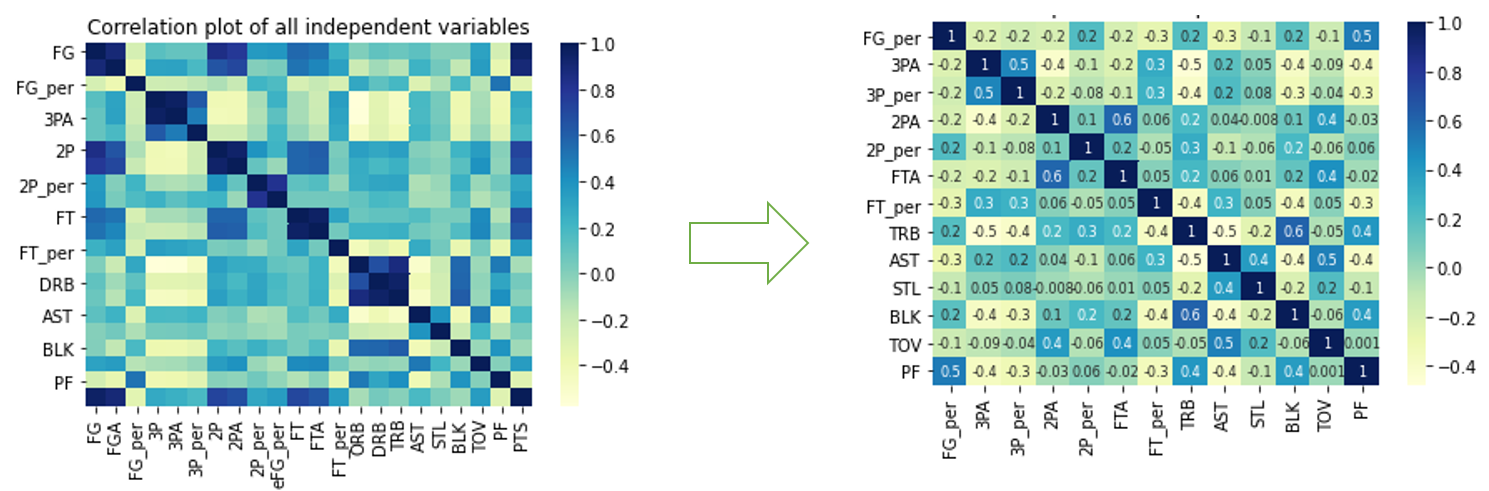


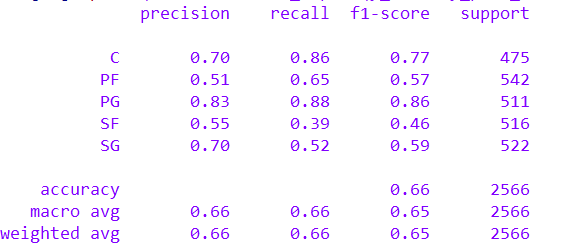


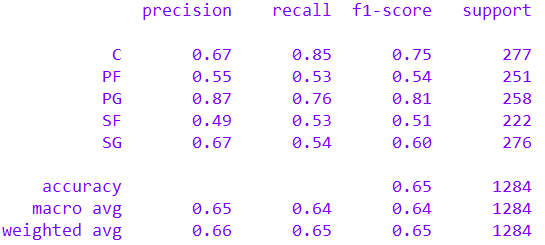


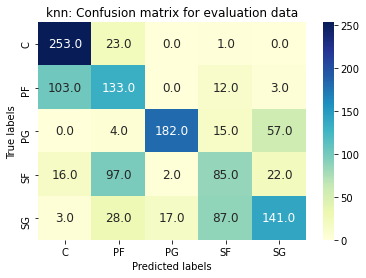
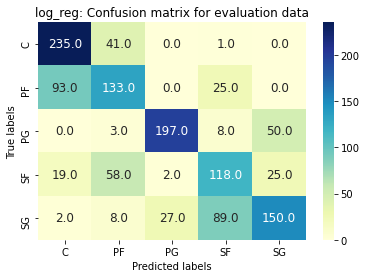


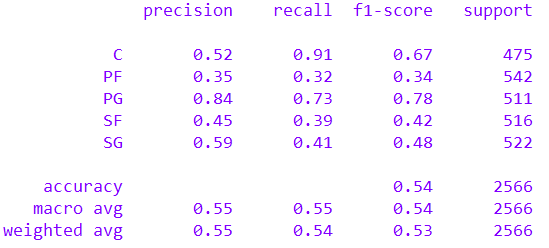


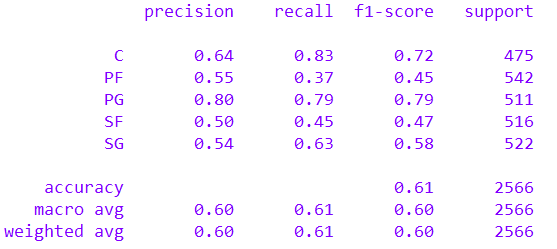


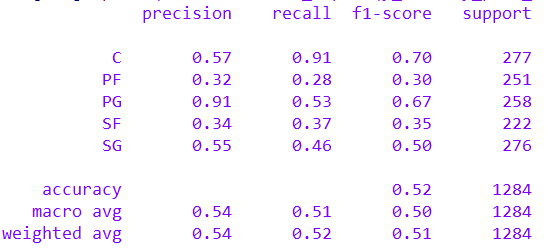


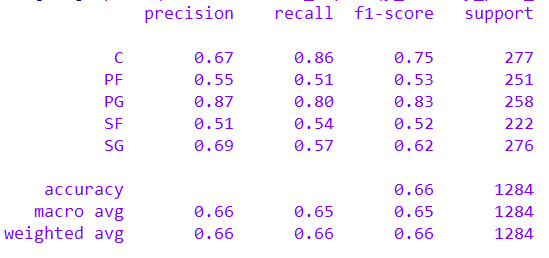
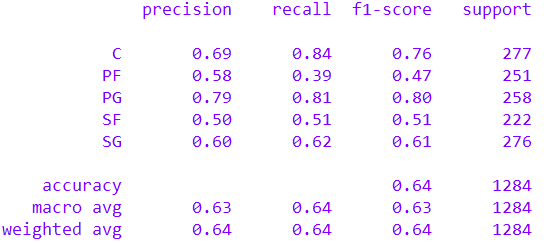


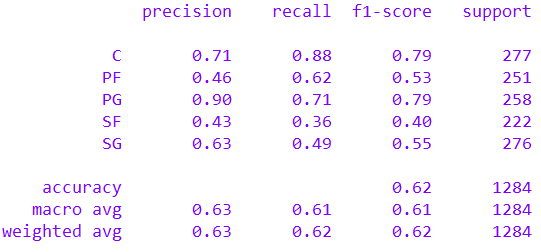
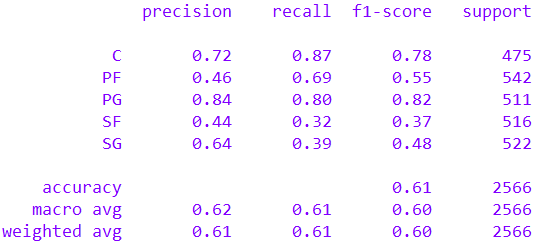


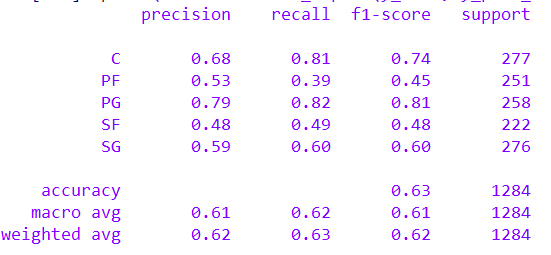
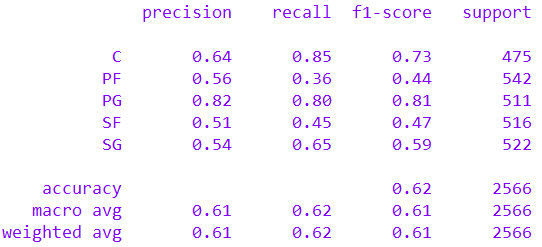


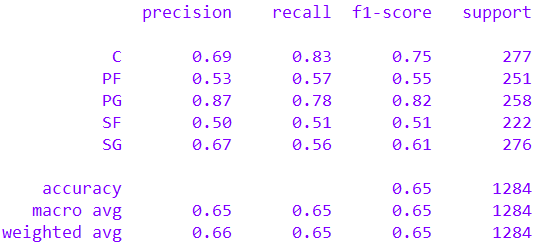
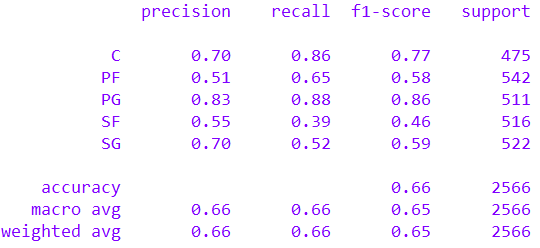






knn

GNB



Analysing test data classification tables



Figure 2: GNB

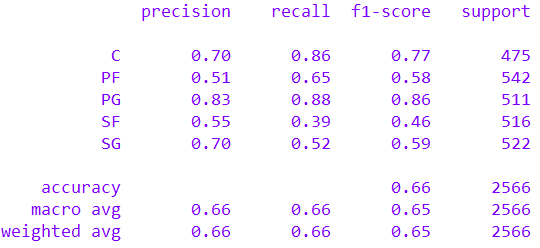


Figure 3: Log\_reg

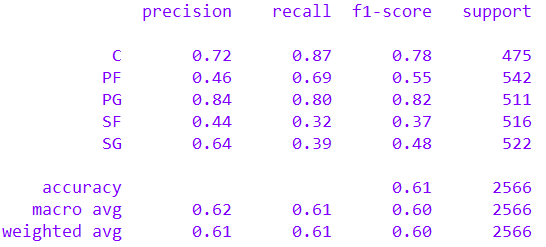
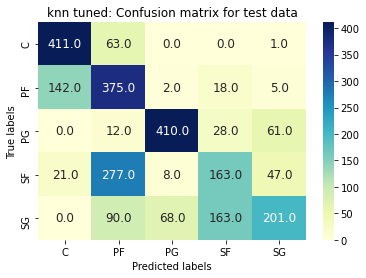
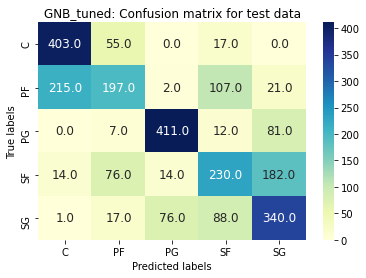
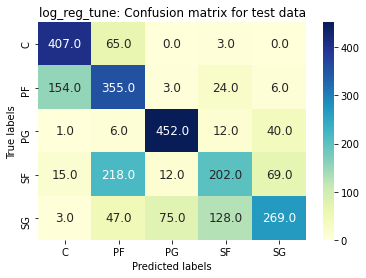


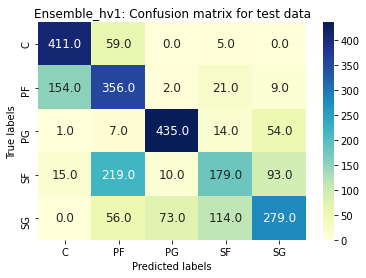
Figure 4: KNN

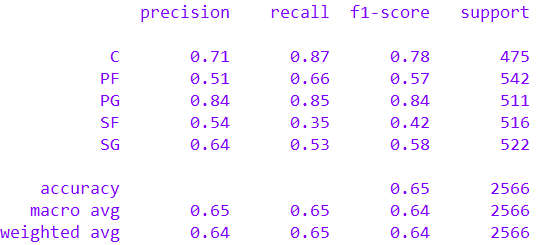


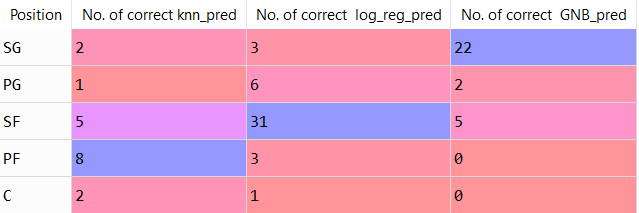
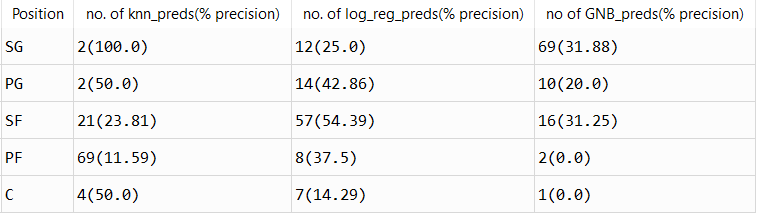
Voting system Results

1. System 1: Hard voting 1.0

* Majority wins in a 2-1 voting split
* For ‘hung parliament’ scenario(3-way voting split) then randomly select a model’s prediction
* Test data Results

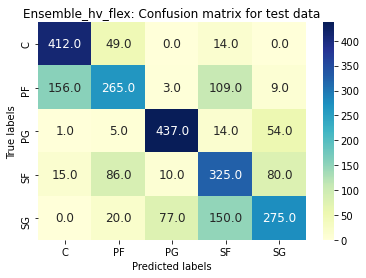


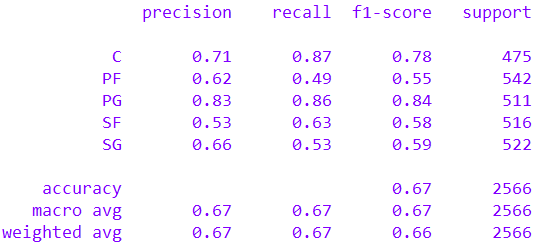




1. System 2: Hard voting Flex (Playing the odds)

* Majority wins in a 2-1 voting split for the most part
* For 2-1 cases where KNN and Log\_Reg agree on a player being a PF
* For ‘hung parliament’ scenario(3-way voting split) then select with the model with the highest precision for the hung cases





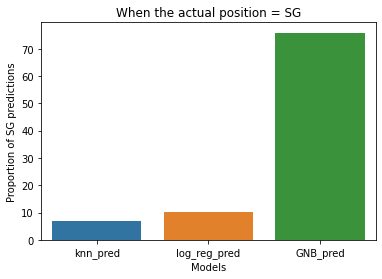


Figure 7: The accuracy of different models for the hung parliament scenario where the actual position = SG

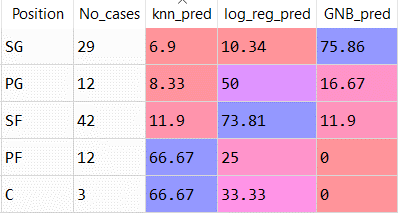


Figure 6: Accuracy of prediction for different labels in hung parliament cases

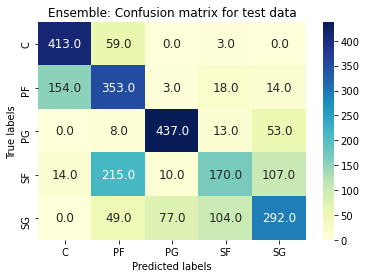
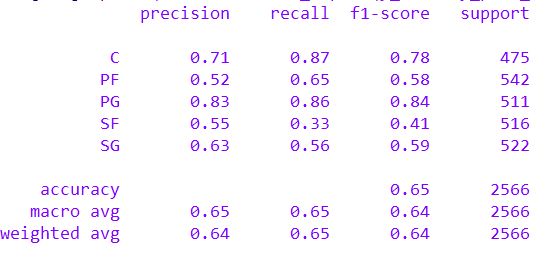
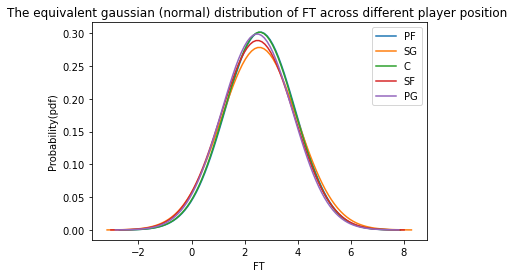
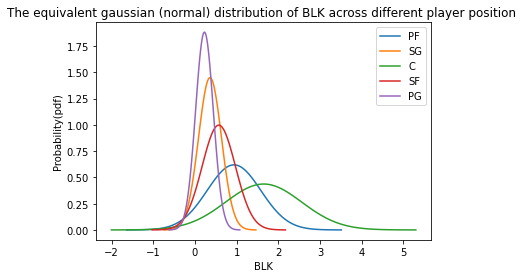
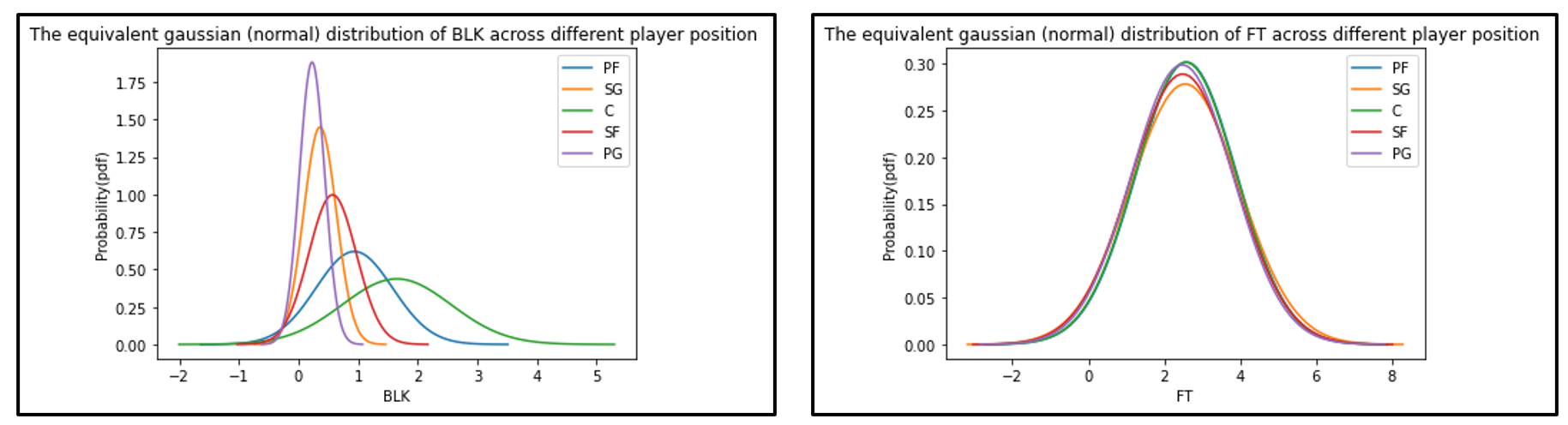


Figure 8: initial hierarchy





**RSD= 0.679**

**RSD= 0.018**

**Relative Standard Deviation: 0.679**

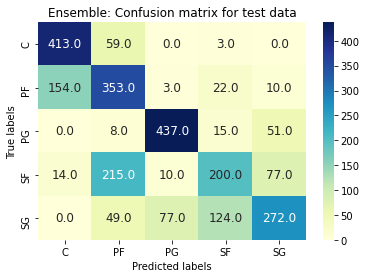


Figure 9: improved hierarchy-- log\_reg\_PF takes precedent over GNB\_SG

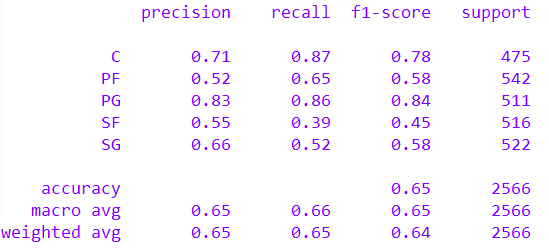
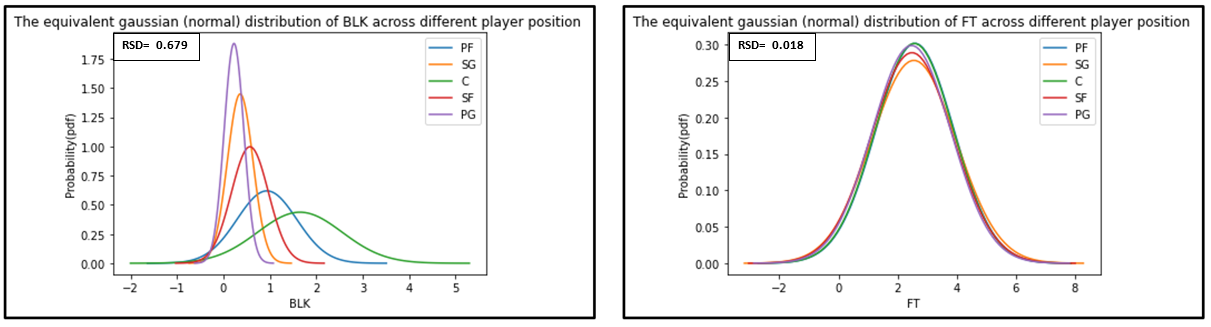
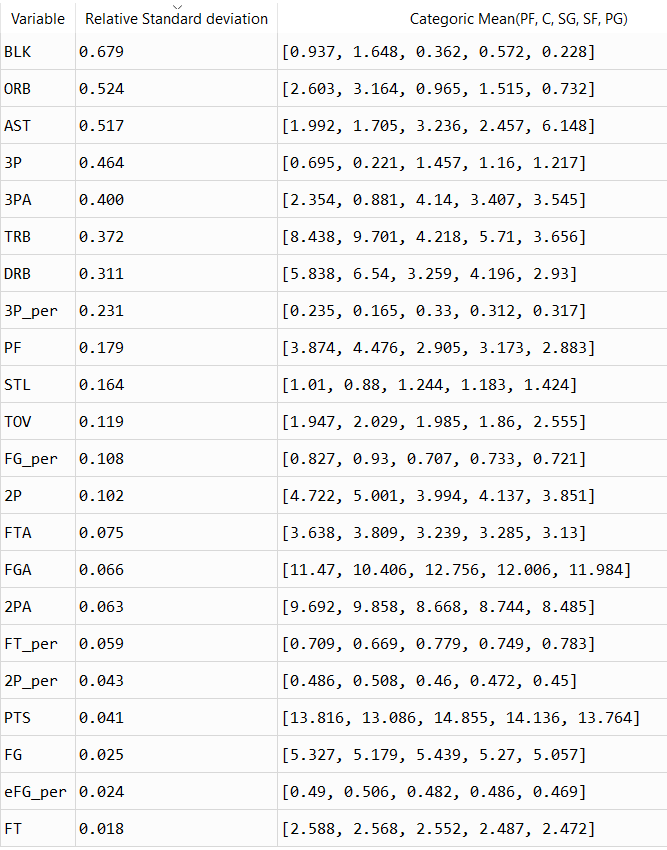
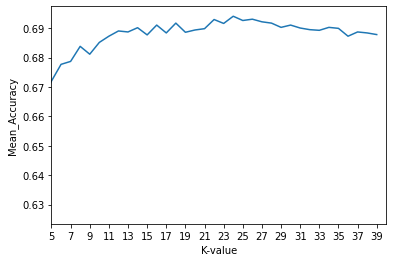
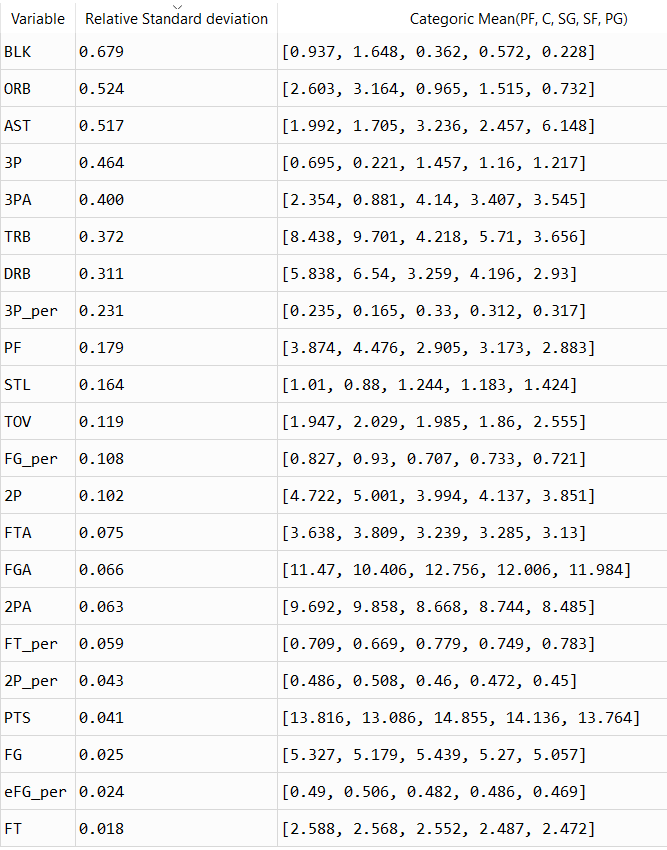


Figure 10: improved hierarchy-- log\_reg\_PF takes precedent over GNB\_SG



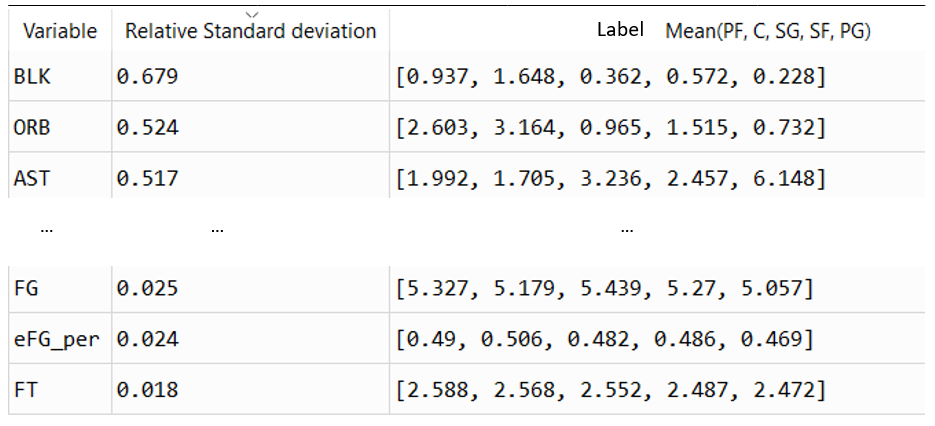


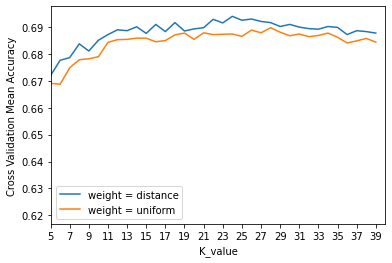


0.694

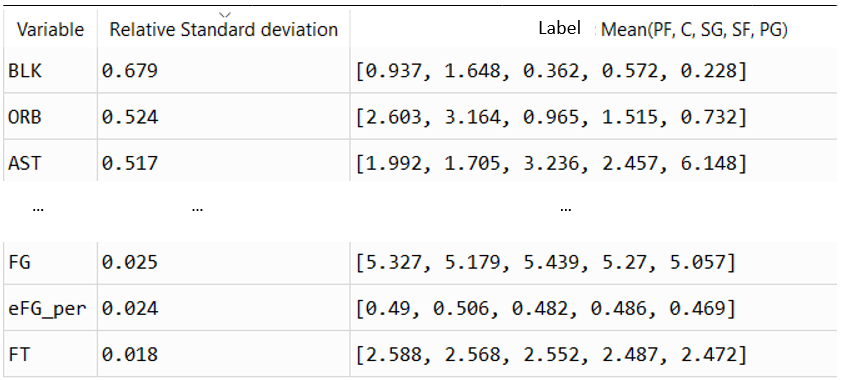
Label

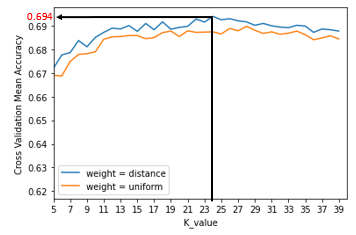
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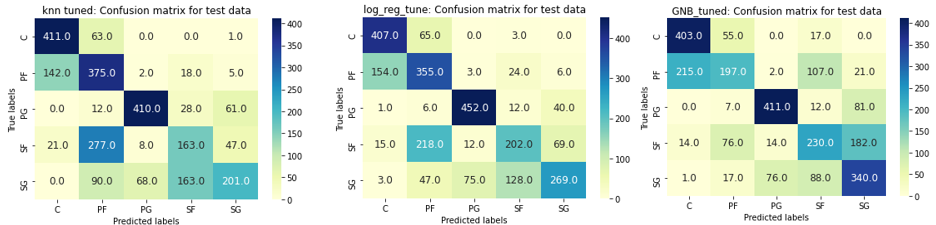


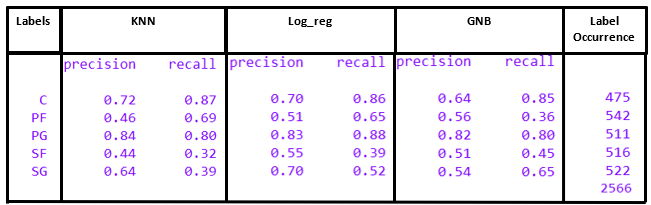


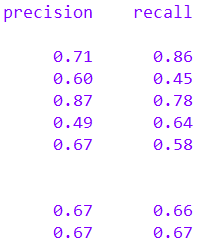
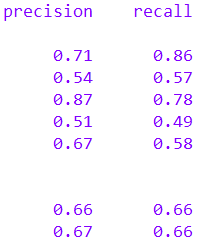
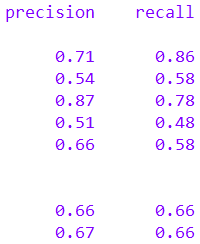
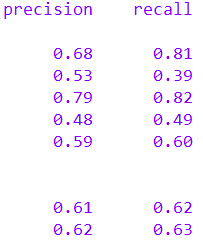
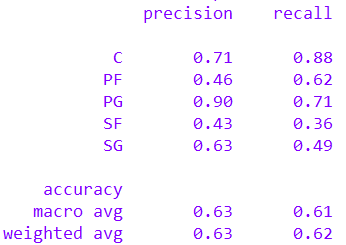
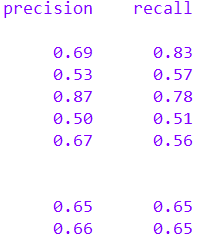
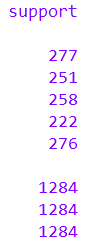
0.694











**Labels**

**KNN**

**Log\_reg**

**GNB**

**E\_hv1**

**E\_hv2**

**E\_hv\_flex**

**Label Occurences**

**0.62**

**0.65**

**0.63**

**0.66**

**0.66**

**0.67**

**accuracy**

