

Generalized Additive Models (GAMs)

CMDA 4654 Project 2

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Generalized Additive Models

- Background (brief)

Generalized Additive Models

- Math stuff

$$g(E(Y)) = \beta_0 + f_1(x_1) + f_2(x_2) + \cdots + f_m(x_m)$$

When to Use & Why

Example - iris

```
data("iris")
```

Example - iris

```
# Set up iris model
```

Example - iris

```
# iris model graph or whatever
```

Example - mtcars

```
data("mtcars")
```


Example - mtcars

```
# Set up mtcars model
```

Example - mtcars

```
# mtcars model graph or whatever
```

Example - Health Data

```
# df <- read.csv('health_data.csv')  
# show the data
```

Example - Health Data

```
# create the model
```

Example - Health Data

show some graphs or whatever

Conclusions

- Useful Libraries

References