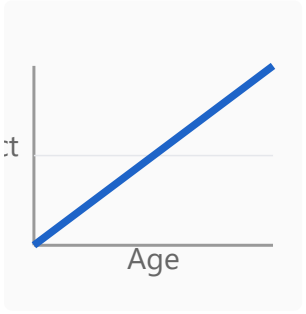
# Generalized Additive Models (GAM)

$$y = \beta_0 + f_1(x_1) + f_2(x_2) + f_3(x_3) + \ldots$$

*where $f_i$ are smooth shape functions*

### $f_1$(Age)

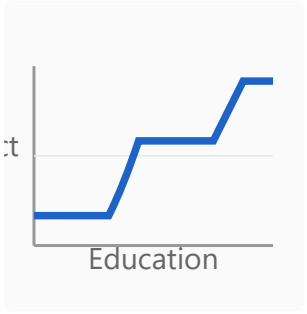



### $f_2$(Income)

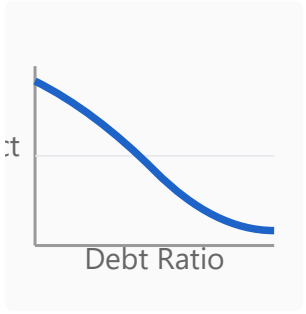

### $f_3$(Credit)


### $f_4$(Experience)


### $f_5$(Education)




### $f_6$(Debt Ratio)




## Key Features

**Independent**
Each feature contributes separately

**Non-linear**
Capture complex patterns via smooth functions

**Interpretable**
Visualize individual feature effects

**Separable**
Effects remain isolated and analyzable

**Balanced**
Between linear and black-box models