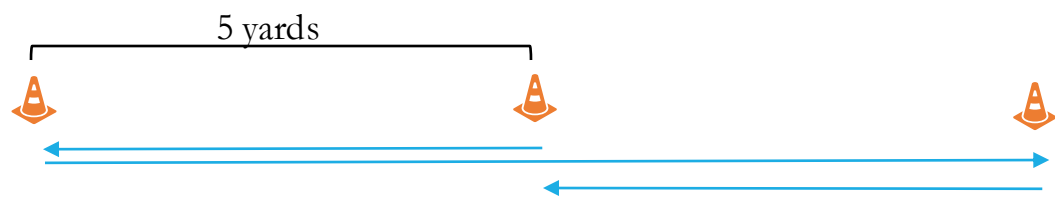


# Understanding the Components of Agility

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MATTHEW RIMOL







# Features

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Position

Vertical Jump  $\div$  Broad Jump

Height

Weight

Height  $\div$  Weight (measure of "lankiness")

Vertical Jump

Broad Jump

Bench Press

Three Cone Drill

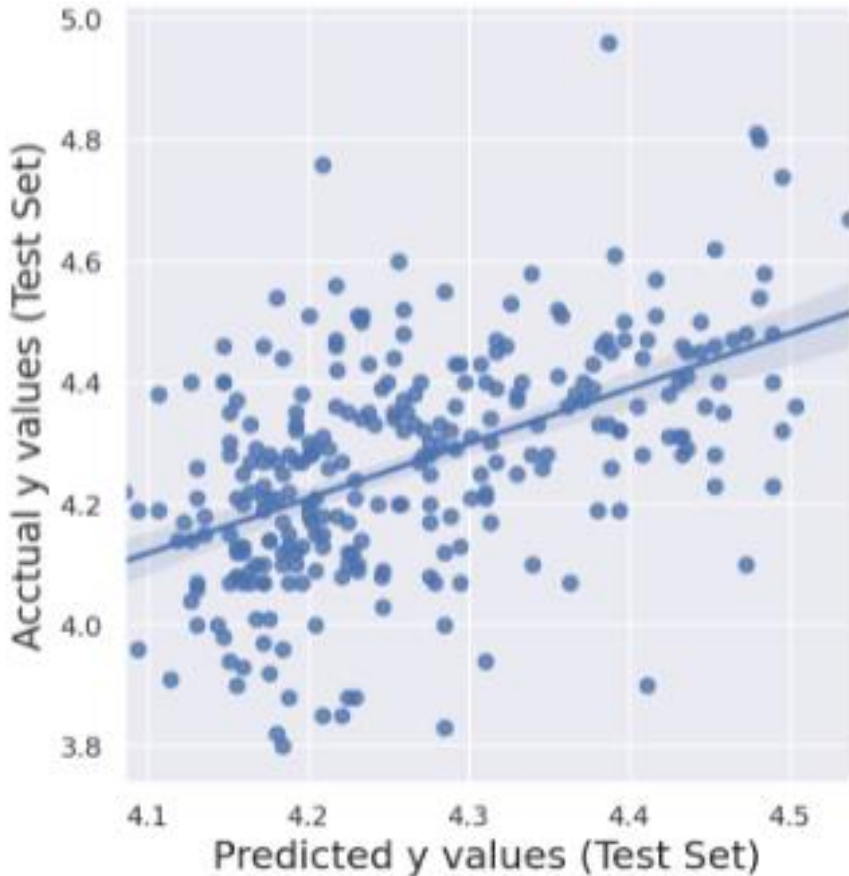
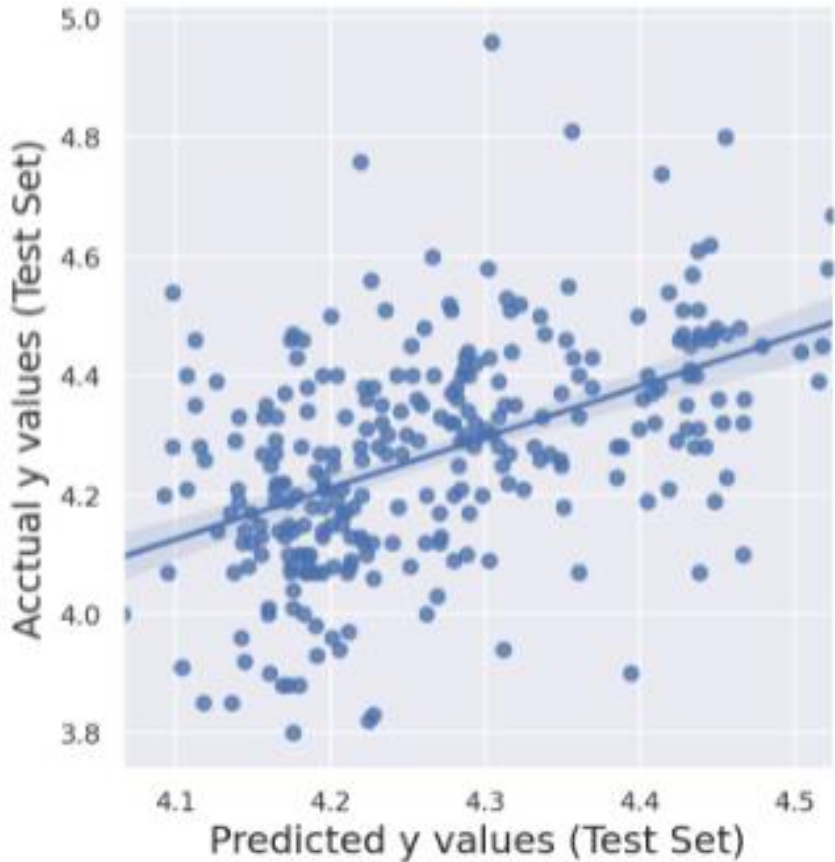
**Shuttle**



Positions	DB, LB, DE (Defense excluding linemen)	DB, LB, DE (Defense excluding linemen)
Features	position, <b>vert/broad*</b>	position, <b>forty*</b>

\*standardized for position group

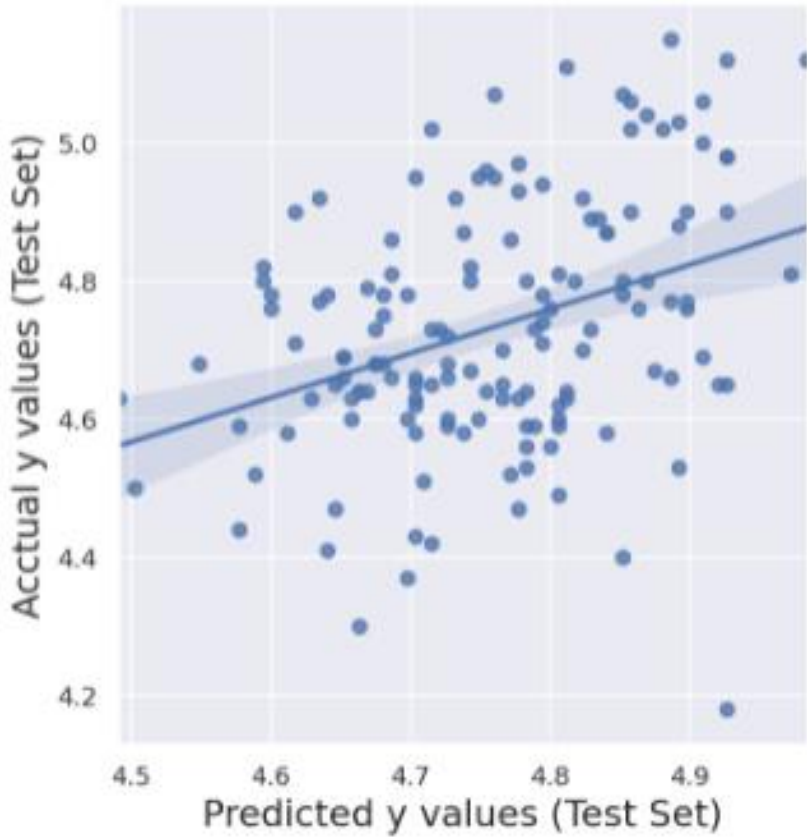
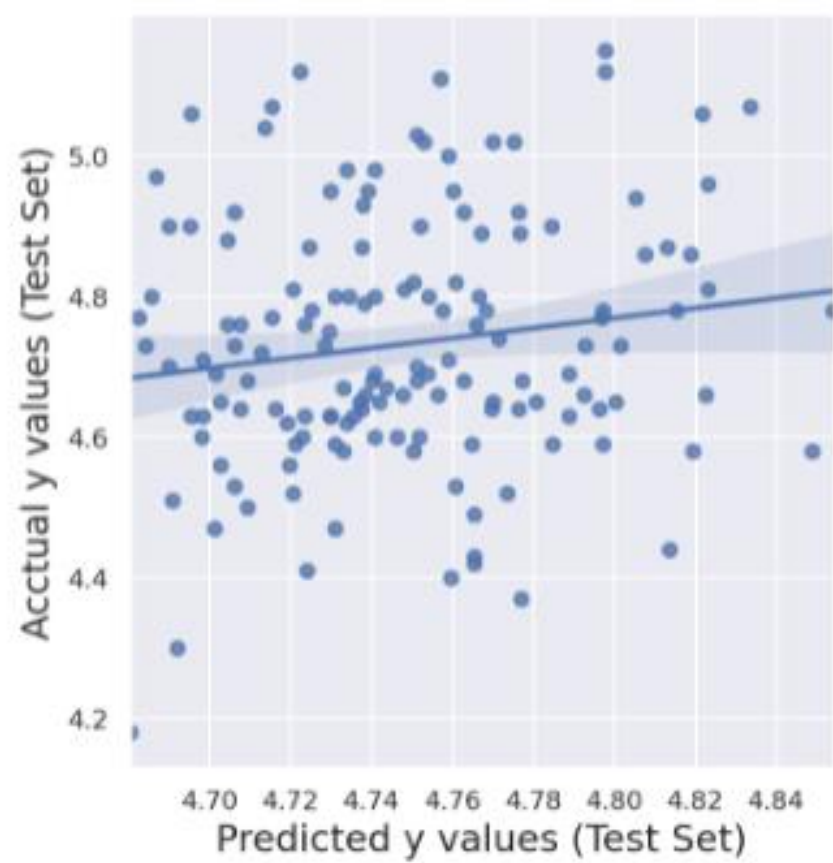
Coef	<div>vert/broad: -0.04</div> <div>DB: -0.11</div> <div>DE: 0.14</div>	<div>forty: 0.04</div> <div>DB: -0.11</div> <div>DE: 0.14</div>
MAE <sub>test</sub>	0.12 seconds	0.12 seconds



Positions	OL (Offensive Line)	OL (Offensive Line)
Features	vert/broad*	forty*

\*standardized

Coef	vert/broad: -0.04	forty: 0.10
MAE <sub>test</sub>	0.14 seconds	0.14 seconds



## Insights

Stronger vertical power relative to horizontal power is associated with faster shuttle time

Vertical Jump  $\div$  Broad Jump predicts similarly to Forty Yard Dash in DB, LB, DE

No Relationship

- Height  $\div$  Weight ("lankiness")
- Bench Press (adjusted for weight)

# How more data helps

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More rows = Sufficient sample sizes for individual positions

More columns = More exercises and different tests