

FORMULYTICS

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INSPIRATION

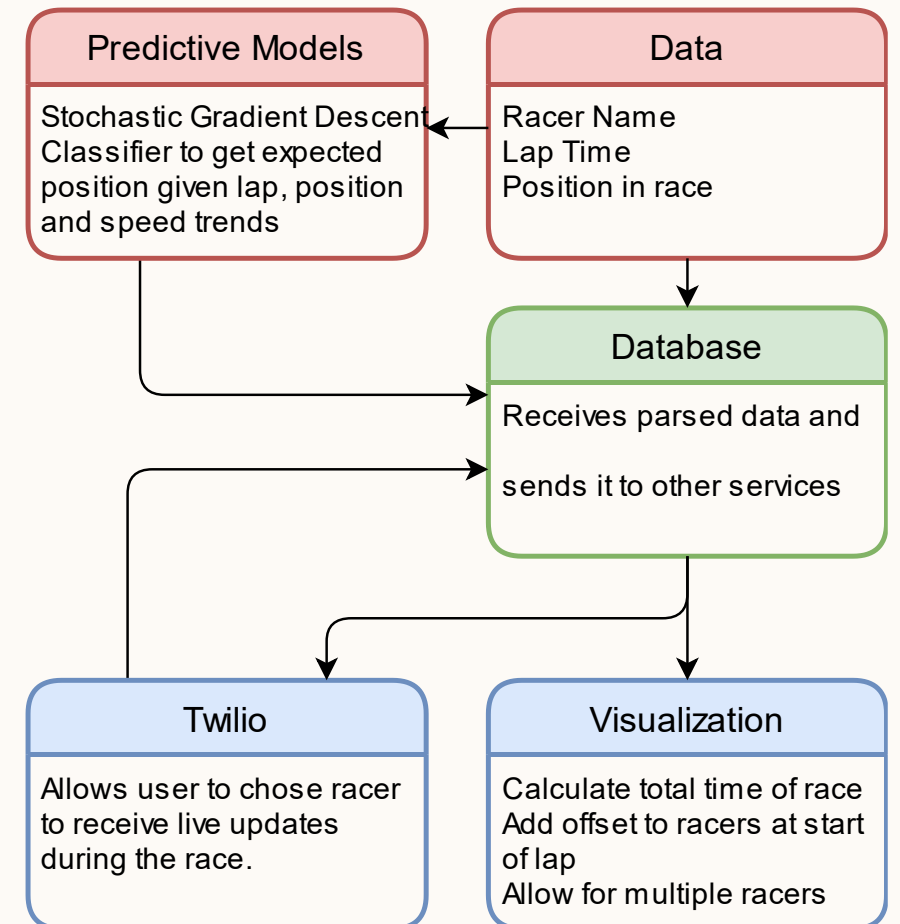
Big companies such as ESPN own the sports market because they are the ones with the data. We wanted a way to visualize sports without the need for copious amounts of information.

WHAT WE PROVIDE

- Live F1 race visualizer with only lap data needed, allows for easy adoption with smaller race organizers.
- Expected finish position
- Live updates of your favorite racer through text with Twilio

HOW IT WORKS

- Receive live data from race
- Python to run predictive models
- MongoDB database hosted on AWS
- Twilio text updates
- Website Visualization



HOW WE VISUALIZE



ELAPSED TIME FOR RACER:

$$T = \sum \Delta t$$

AVERAGE VELOCITY:

$$\bar{v} = T / (\omega - 1)$$



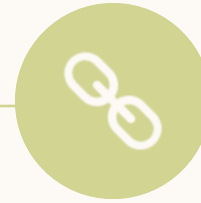
GRAPHING

$$X(t) = \sin(t/\alpha)$$

$$Y(t) = \cos(t/\alpha)$$

HOWEVER, THIS DOES
NOT ACCOUNT FOR
PREVIOUS LAP OFFSET OR
LAPPED RACERS

$$\theta = 2\pi * (1/\bar{v}) * (L - T)$$



OUTCOME

ALLOWS FOR RACERS TO
BE VISUALIZED RELATIVE
TO EACH OTHER AND
SHOW ACCURATE
RACE POSITION WITH
ONLY A LAP TIME