What factors attribute to my overall “success” or “fitness stalling” as a new and goal-driven ultra marathon-runner. How can I use these factors to improve my performance and chances of successfully reaching my goal of running 100 miles at once.

Because my running data covers a wide range of indicators such as daily performance, mood, health status, course conditions, etc. The goal is to identify what data exists and narrow down what is important and what is accessible.

	Difficult to Access	Readily Accessible
Critical Important	Nutritional Data, Mood / Mental Health Data, General Health Data Medication Impact Data, Weather Data, Run Type (speedwork, hills, LSD)	Total Mileage, Total Activity Time, Average Pace Total Elevation, Course Types (Road v Trail), Sleep Status, Cross Training Data, Injury History, AVG Activity HR
Probably Not Needed	Course conditions (muddy, snow covered), VO2 Max data, Runner Demographic Benchmark data,	Course Map Data, Shoe Data, Time of Day, Racing event history, Weight Min/Max HR

Data Item	Importance (A/B/C)	Accessibility (1-4)	Why It's Important	Why it's Accessible (or not)
Nutritional Data	B	2	Can give insights around fueling that can fine tune daily activity and event performance and recovery.	While available from tracking apps such as MyFitnessPal, it is reliant on data input which can be cumbersome and time consuming.
Mood/ Mental Health	A	2	As someone with Bipolar II disorder, my mental health greatly affects my day-to-day, including my desire to run/workout.	Not easily available through general tracking apps and might require journaling or other method of manual input.
General Health	B	2	Can help tailor workouts or training load during periods where my body is sick or compromised.	While available on medical apps (like MyChart), it is not easily exportable, which could mean manually tracking.
Medication Impact	A	2	Understanding the side effects and physical impact my daily medication contain can help me fine tune my training schedule.	Everyone is affected by different side effects, and it is almost impossible to qualitatively link medicine affects to performance impacts.
Weather Data	B	3	Tying different weather patterns to similar courses/performance can help indicate how my body responds to different conditions.	Available through National Weather Service or even other weather tracking services and API connectors.
Run Type (speedwork, hills, LSD)	B	3	Understanding how variable my workouts have been can help me identify gaps in my training.	Available natively in the Garmin Express Tracking app but requires manual input after the fact which can be inconsistent.
Total Mileage,	A	4	Is a direct indicator of distance ran, thus can act as an "event readiness" indicator.	Available natively in the Garmin Express Tracking app.
Total Activity Time	A	4	Is a direct indicator of time spent completing different activities, thus can act as an "event readiness" indicator.	Available natively in the Garmin Express Tracking app.

Average Pace	B	4	indicator of average speed on any given run or group of runs.	Available natively in the Garmin Express Tracking app.
Total Elevation	B	3	indicator of feet climbed while running, given high elevation gains of most ultras, measure elevation is vitally important.	Available natively in the Garmin Express Tracking app, though reliability is questionable. It is worth double checking additional topographical sources which could cost money or time to acquire and stitch together.
Course Type (Road vs. Trail)	B	4	Can be used for performance comparisons for training and event runs.	Available natively in the Garmin Express Tracking app.
Sleep Status	B	4	Can in inform physical recovery, training readiness or physical health concerns.	Available natively in the Garmin Express Tracking app. But it requires wearing measurement hardware while sleeping, which can be inconsistent or uncomfortable.
Cross Training Data	B	4	Building strength and endurance with other activities can support running training. Measuring that general performance can be helpful for planning future training.	Available natively in the Garmin Express Tracking app.
Injury History	A	3	Understanding problem areas can help focus strength training or recovery efforts.	Needs to be manually tracked.
Course Conditions	C	2	Informs training or event performance.	Needs to be manually tracked and added to activity information notes in designated activity tracking app.
VO2 Max	C	3	Can help establish heart rate or aerobic training zones for more optimal training.	Needs to be completed at a licensed practitioner for a fee. A true test is also physically difficult and presents completion challenges that make data

				collection potentially fraught.
Runner Demographic Benchmark Data	C	3	Provides comparisons with other runners to benchmark potential training success or readiness.	Mostly available in tracking apps or even via event result metrics.
Course Map Data	C	4	Can indicate where it is safe or not to run or even show patterns of regular runs. It could also be used to scout potential new running routes.	Available with most GPS enabled activity tracking services.
Shoe Data	B	4	Tracking mileage on shoes is crucial to ensuring timely replacement to prevent potential aches/pains or injuries.	Must be manually tracked and calculated.
Time of Day	B	3	Informs optimal training times for an individual.	Available natively in the Garmin Express Tracking app.
Racing Event History	C	4	It can be used to benchmark one's own performance and provide metrics around growth or success as a runner.	Available natively in the Garmin Express Tracking app, but requires manually marking an activity as a race or event.
Weight	B	4	It can be an indicator of health-related goals or concerns in regard to training.	Must be manually acquired but can be tracked in many health apps.
AVG Activity HR	A	4	Indicates if training or racing is being done within the predetermined zones.	Requires either a watch with built-in HR tracking capabilities or additional equipement.
Min/Max HR	C	4	Indicating the extremes of HR during training, could also indicate if equipment is functioning correctly.	Requires either a watch with built-in HR tracking capabilities or additional equipment.

This project had me really reflect on the data that is available around both running and cross training. Pushing myself to think about factors or datapoints outside my immediate

performance on any given run or workout made me think about how much really goes into performance on any given day. One of the key things that was noticeable, mostly regarding my physical and mental health data, is how manual it would be to collect it. It would require a decent chunk of time every day to sit down and either journal, which is the most comprehensive form of tracking, or just provide a score system like 1-10, which would then miss a lot of nuances to daily mood or health concerns and not provide very helpful data. As a self-described “data guy” I take pride in how many different aspect I look at when it comes to my running (I recently bought a newer and nicer watch to assist with tracking), however this opened my eyes even further to the data I’m not actively tracking and has me thinking about ways to begin incorporating that into my measurement and tracking routines.