

One year of cycling

GPS recording an entire year of bike rides using Garmin and Strava

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One year ago I started recording all my bike rides, including commutes, short grocery trips and long Gran Fondos. I equipped my bicycles with Garmin Edge computers that recorded location (GPS), speed, cadence and my heart rate. I covered more than 7683 kilometers during 320 hours of riding. It's time to review all the data and share some photos I took along the ride!

Collecting cycle data

While it is possible to record cycle rides from your smartphone, I chose dedicated bike computers to record my rides. They provide more accurate speed data and can be connected to external sensors, like cadence and heart rate sensors.

On my Sensa Romagna road bike I used the advanced Garmin Edge 1000 bike computer while on my VanMoof city bike I used the compact Garmin Edge 25. Both bikes are equipped with speed and cadence sensors, and during many of my rides I wore a heart rate monitor. Bike rides were uploaded to Strava for analyses and aggregation.

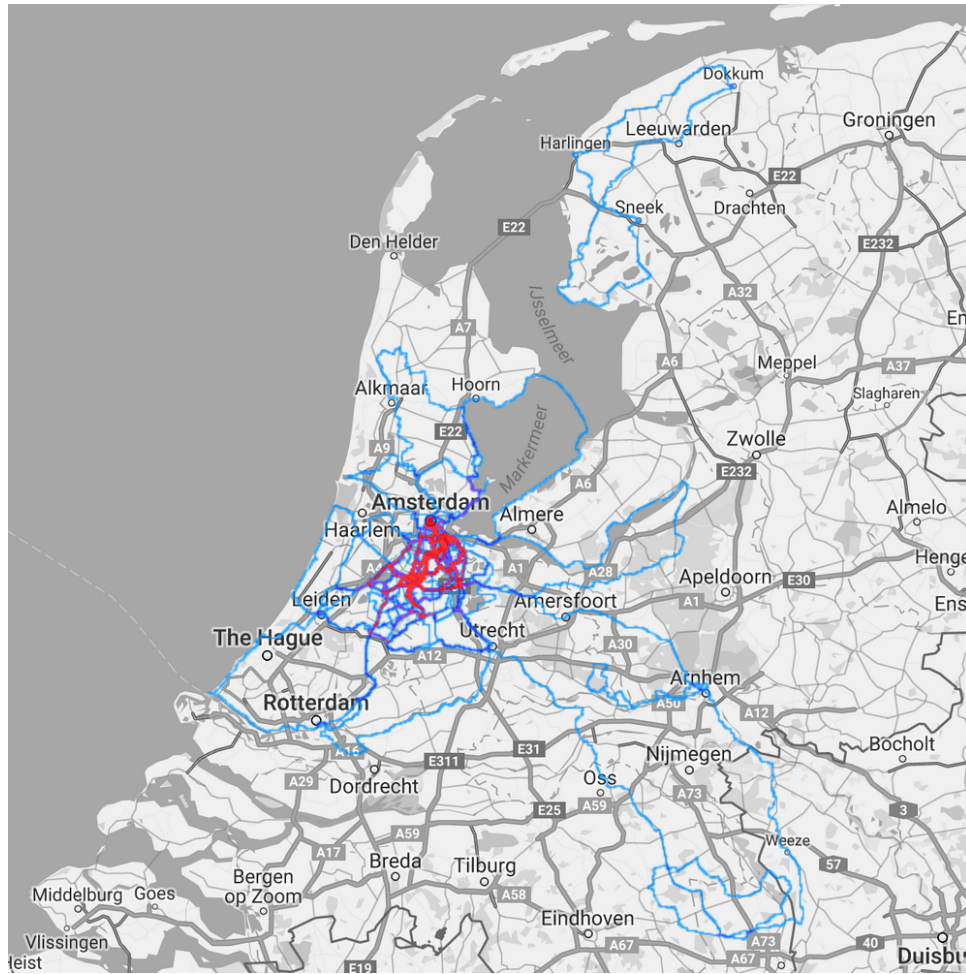
Data collected:

- speed (using GPS and speed sensors)
- distance
- GPS location (where I went)
- heart rate
- local temperature
- time (of the day and duration)
- cadence (revolutions per minute of the pedals)

Among the rides were my daily commutes and short trips to the local grocery store. I even recorded my nightly rides to (and from) the Amsterdam bars. About once every month I drove a "Gran Fondo" (Italian for long distance ride). Combined with the varying Dutch weather conditions these long distance rides (>100KM) provided a real challenge for both man and machine.

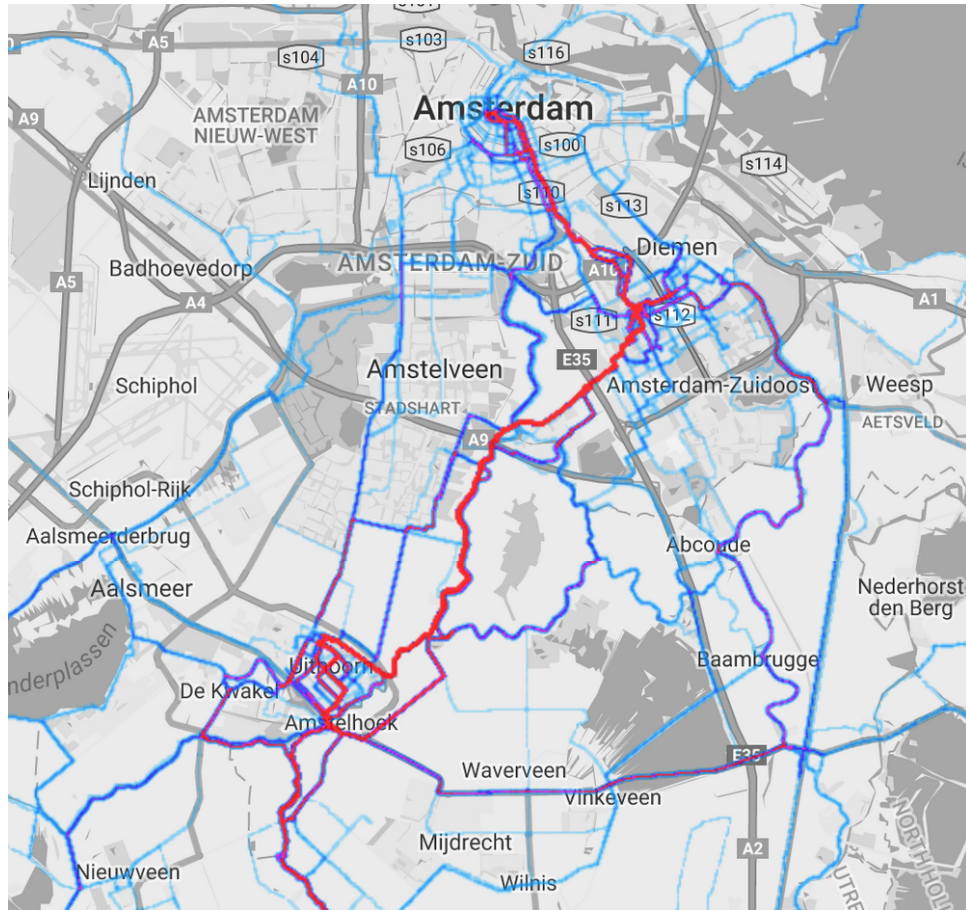
Heatmap: Where did I go?

Strava provides an option to generate an heatmap, visualising all the GPS location data. The more frequent a route is, the more red (or hot) it becomes (hence the name heatmap).



Heatmap of my bike rides in The Netherlands. Red indicates frequently driven routes.

On this map of The Netherlands you can clearly see that I did most of my rides just under the city of Amsterdam. That's no surprise since that is where I live and work.



Heatmap of my bike rides in the Amsterdam area.

If we zoom into the Amsterdam area, my main commute route can be distinguished easily. My house is in Uithoorn (lower left) and I work in Amsterdam-Zuidoost. You can also spot alternative routes and my favourite area in downtown Amsterdam.

Summarising the data

Using Strava and Garmin Connect it is possible to summarise the data:

- total distance of 7683 kilometers
- total ride time of 319 hours and 56 minutes
- weekly average distance of 147.75 kilometers
- weekly average ride time of 6 hours and 9 minutes
- 366 rides
- 250744 calories burned
- average heart rate of 145 BPM
- maximum heart rate of 198 BPM
- average speed of 25 kilometers per hour
- maximum speed of 57 kilometers per hour
- average bike cadence of 83 RPM
- coldest ride, temperature of -4 °C (30 December 2016)
- hottest ride, temperature of 35 °C (20 July 2016)
- longest ride 231 kilometer during 9 hours 11 minutes (Fietselfstedentocht, 16 May 2016)

- fastest commute 27 minutes 15 seconds for a distance of 16.17 KM (35.2 kilometers per hour)

Tires, wear and tear

During the year I had two punctures and wore out four tires. But the most visible wear on the bike were my pedals, they were new when I started just 12 months ago...



This pedal was new when I started, this is how thousands of kilometers cycling look like on a pedal.

Next year

In 2017 I will continue collecting cycle data to do a back-to-back comparison next year. Feel free to follow me along into the new year: [strava.com/athletes/12012433](https://www.strava.com/athletes/12012433)

The year in pictures

I took photos during many of my rides. Click on any photo for an enlargement.



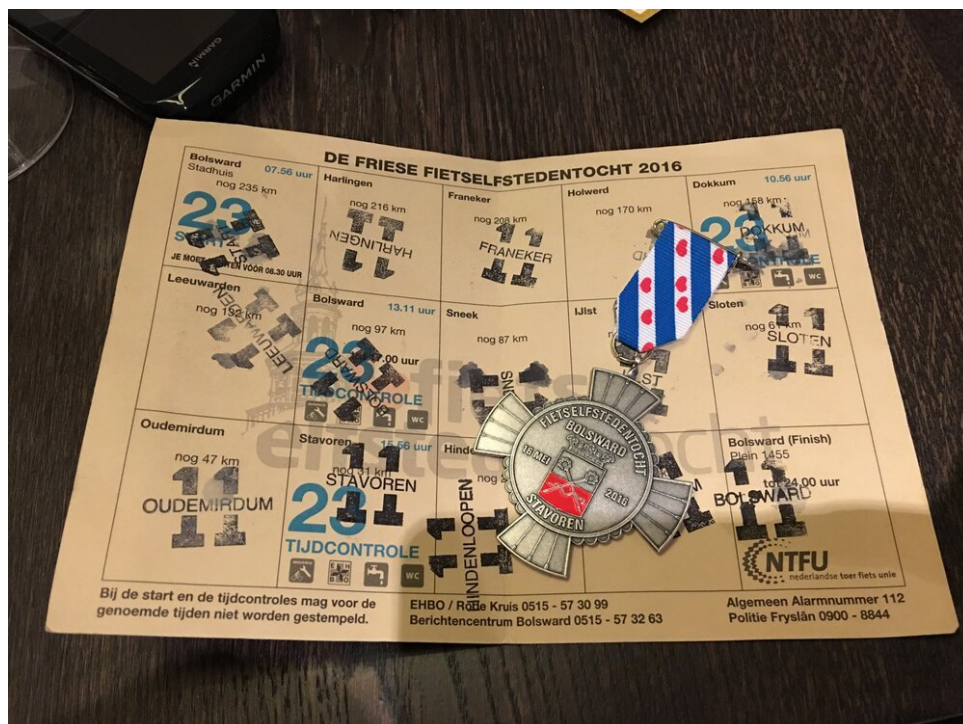
First gran fondo was cycling around the Dutch "Markermeer", a 208.5KM ride.



After some long haul rides I disassembled the bike to get home.



For longer rides (>8 hours) the bike computer required additional power. I installed small USB power bank in my seat bag.



The completed stamp card of the "Fietselfstedentocht", with 231 kilometers the longest single ride of 2016.



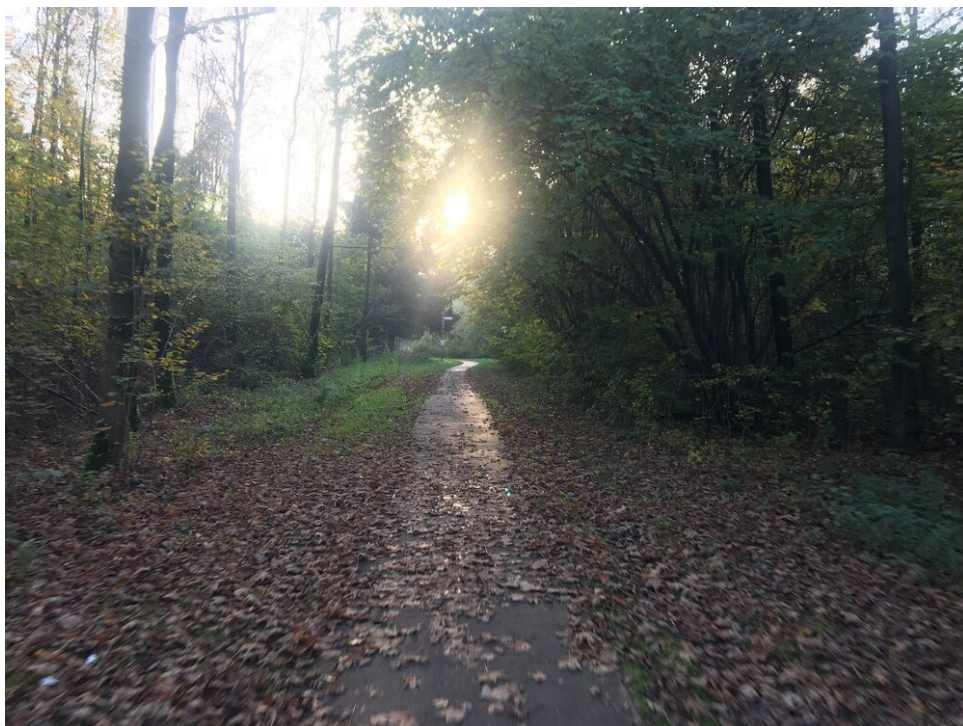
In addition to commutes and grand fondos I also recorded short trips to the grocery store. Like this one on the "Beer Bike".



On few occasions I crossed international borders. This photo was taken in Germany next to an Autobahn.



This photo was taken during a ride through the forest near Hilversum. The nearby trees really give you a sense of speed (and reason to stay focussed on steering straight...)



During autumn the days became shorter and many rides where done during dusk or dawn. It's nice to see the sun come up or go down.



This picture was taken in downtown Leiden during one of the first cold days of November.



In the Netherlands there is no shortage of dykes. Many of them have long straight bike lines on them. This one is near "Hoek van Holland", you can see the Rotterdam Maasvlakte industry at the horizon.



One of my nightly rides went through the McDrive - bikes are welcome, apparently :-)



It was really cold during this ride in December. My drink bottles, gloves and shoes were frozen!

The Netherlands is beautiful by bike. Click any picture for an enlargement:



























