# BTSA

## Berlin Time Series Analysis Meetup

berlin.timeseries.analysis@gmail.com

# Agenda

1. Introduction & Resources

2. Today's Session:

   *Exploratory Data Analysis for Time Series Data*

3. Next Meetups

# About us

**Munji Choi** **(FreeNow)**

**Sebastián Martínez** **(University of Glasgow)**

**Juan Orduz** **(HelloFresh)**

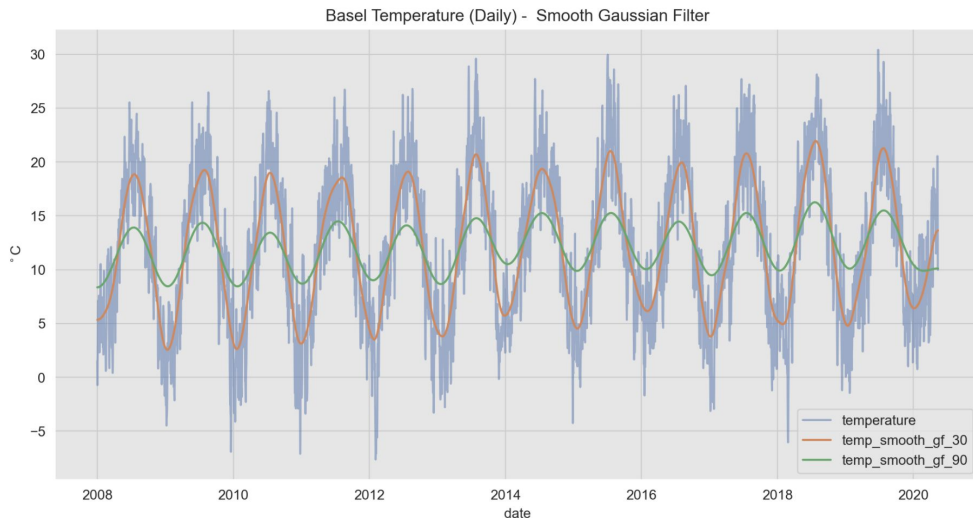**Aaron Pickering** **(Fresenius Data Solutions)**

# Code of Conduct

Make sure you read out Code of Conduct! Key points:

- Please be nice with each other :)
- We want this to be a safe space to ask questions and have constructive discussions.
- We do not tolerate any kind of abusive, racist, discriminatory, derogatory or demeaning behaviour, speech or actions.
- If you feel a victim of such actions please let the organizers know.

# Resources: [GitHub Repository](https://github.com/juanitorduz/btsa)

**Berlin Time Series Analysis (BTSA) Repository**

This repository contains resources of the *Berlin Time Series Analysis* meetup. You can find a list of references on the resources section (which we will continuously update).



Basel Temperature (Daily) - Smooth Gaussian Filter

[https://github.com/juanitorduz/btsa](https://github.com/juanitorduz/btsa)

# Today's session: What do we want out of our data?

- Not set in stone, but a guiding principle
- Can our data answer the questions we have?
    - Time series data is different

Tools from today's session

- Missing values and data frequency
- Stationarity and correlation analysis
- Seasonality, decomposition, and outlier detection
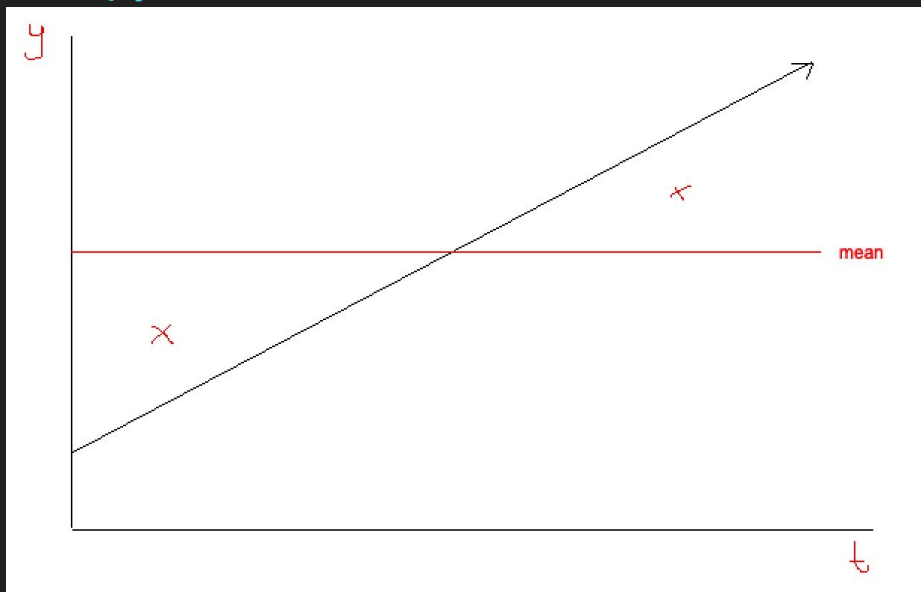
# Data viz and missing values

https://github.com/juanitorduz/btsa/blob/master/python/fundamentals/notebooks/eda_part_1_viz_and_missing_values.ipynb

# Stationarity and correlation analysis

https://github.com/juanitorduz/btsa/blob/master/python/fundamentals/notebooks/eda_part_2_correlations.ipynb

# Seasonality, decomposition, and outlier detection

https://github.com/juanitorduz/btsa/blob/master/python/fundamentals/notebooks/eda_part_3_decomposition.ipynb

# Additional resource:

[Markus Löning](#) from our September meet-up shared his time series EDA:

[https://github.com/mloning/intro-to-ml-with-time-series-DSSGx-2020/blob/master/notebooks/02_exploratory_data_analysis.ipynb](https://github.com/mloning/intro-to-ml-with-time-series-DSSGx-2020/blob/master/notebooks/02_exploratory_data_analysis.ipynb)

# Next Meetups - [More Info](#)

- **Save the Date:** 09.02.2021
  **Topic:** TBA.
  **Speaker:** Dr. Francesca Lazzeri

- **Save the Date:** 09.03.2021
  **Topic:**TBA.
  **Speaker:** Matthijs Brouns

We are looking for speakers!

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