

Certificate

We hereby confirm that

Nicola Rudow

has completed the intensive program

**Education and Training as Data Analyst
(Data Analytics)**
with 540 hours of programming practice
(corresponds to 720 lessons)

successfully.

Participation from 20.06.2022 until 09.09.2022.
Köln, the 12.09.2022



Dalia Das, Founder & CEO



Philipp Wendt, Head Coach

Curriculum

In 720 lessons the students have learned, discussed and practiced the following content in several tasks and projects

Programming & Tools

Tableau

- Connecting to data
- Calculated Fields
- Level of Detail Calcs
- Dashboarding

Google Sheets

- Formulas
- Pivot tables
- V-Lookups

Python

- Functions
- Data Types
- Pandas
- Numpy
- Matplotlib
- Seaborn

Unix

- Filesystem manipulations

SQL

- Creating Tables
- Querying Data
- ETL and Data pipelines

Communication and Stakeholder Management

- Requirements gathering
- Answer first methods
- Presentation techniques
- Technical vs non-technical stakeholders
- Stakeholder review

Math & Statistics

- Descriptive Statistics
- Inferential Statistics

Data Analysis

- Exploratory Data Analysis
- Data Visualization
- Correlation
- Distribution
- Geo-spatial

Advanced Analytics

- Regression & Classification
- OLS-based models
- K-means
- Distribution
- DBScan

Collaborative Working & Social Learning

Pair Coding

- Drive & Navigator

Agile Workflow

- Daily Stand-Ups

Daily Class Review

- Team work & Self-organization skills

Group Work, Individual Exercises, Reversed Classroom

- Team work & Self-organization skills

Git-Workflow, Google Drive (Docs/Tables)

Students 1:1

- Spot checks with instructional team

Project team work

- Git Project Board

Data Analytics Portfolio Projects

Project 1

- Decision Tree Analysis

Project 2

- Exploratory Data Analysis

Project 3

- Data Pipeline and Database

Project 4

- Interactive Dashboard in Tableau

Final Project

Capstone (4 weeks)

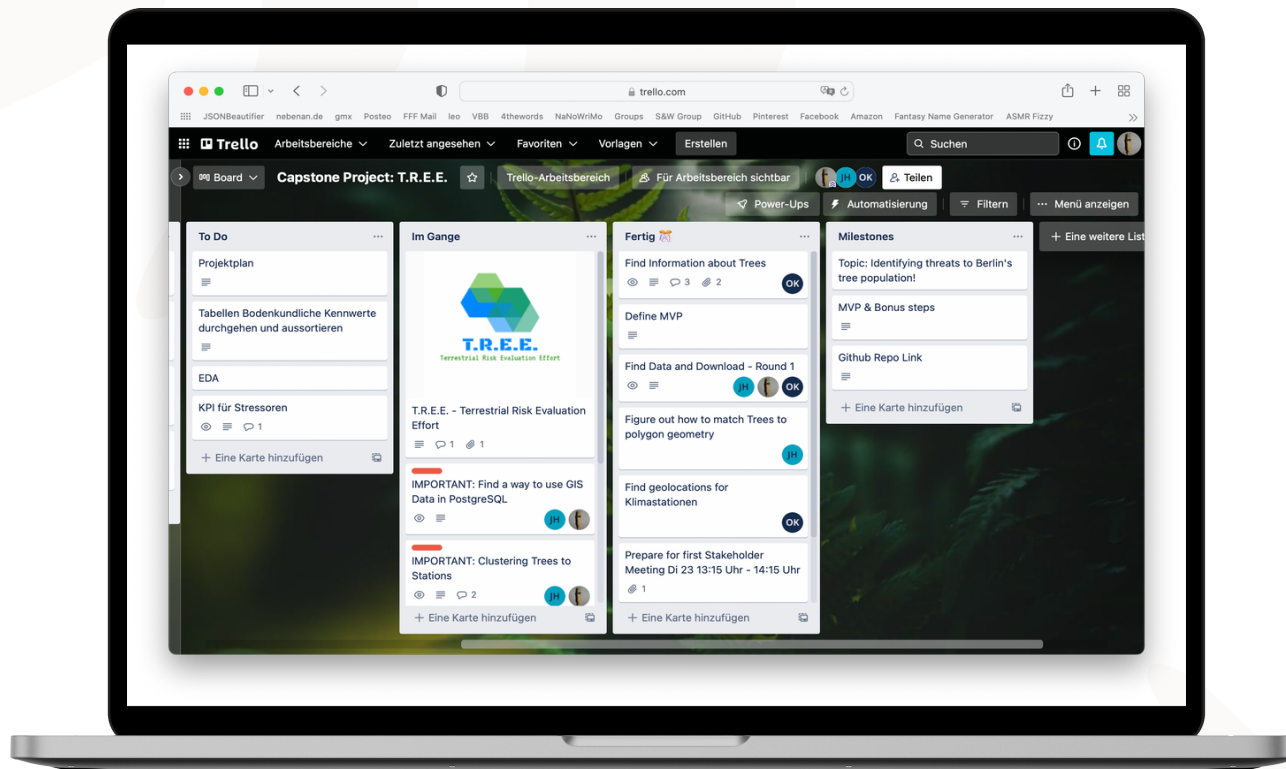
Capstone Project

Designed and implemented by

Nicola Rudow

Summary:

Today's city-trees are suffering from many ailments like heat waves and draughts. Yet they are important to mitigate effects of climate change. We used data analysis to identify areas in a big city (Berlin) where they are under high risk from stressors, so governmental facilities can pinpoint where to focus their efforts to save our tree neighbours.



Project title:

„T.R.E.E. - Terrestrial Risk Evaluation Effort“

Highlights:

Python / Tableau / Pandas /
GeoPandas / GIS / SQL / Trello / VS
Code / Project Management