

# Frank Schlosser

## Data Scientist & Researcher

Berlin, Germany | updated April 14, 2022

✉ [frankfschlosser@gmail.com](mailto:frankfschlosser@gmail.com)

☎ (+49)173 9377731

🌐 [franksh.com](http://franksh.com)

🐙 [github.com/franksh](https://github.com/franksh)

🌐 [frankschlosser](https://www.linkedin.com/in/frankschlosser)

📄 [Publication List](#)

## Work Experience

### Data Scientist

Data Science Retreat

Jan 2022 – Apr 2022

Berlin, Germany

- Gained deep knowledge and hands-on experience in state-of-the-art methods in Data Science, Machine Learning, Data Engineering and Data Visualization.
- Developed and deployed [NovaAI](#), a conversational AI for language learning, using NLP and Transformer-based language models including GPT-3.

### Researcher & Data Scientist

Robert Koch-Institute, [Complex Systems Lab](#)

Feb 2016 – Dec 2021

Berlin, Germany

- Scientific Lead for the [Covid-19 Mobility Project](#): Analyzed mobility in Germany during the Covid-19 pandemic using mobile phone data (using methods from data- and network science) to improve pandemic response policies; initiated the project and scaled it to a team of 5 scientists and a yearly budget of 2 million Euro.
- Developed time series models of infectious disease spread and implemented complex numerical simulations in Python (numpy, scipy).
- Cleaned and analyzed large geospatial, public health and social media datasets using Python (pandas), SQL.
- Communicated research results in peer-reviewed journals (EPJ Data Science, PNAS, etc.), interactive blog posts and dashboards, presentations, press interviews and reports to public and government stakeholders.

### Data Science Consultant

UNICEF Office of Innovation, part-time

May 2019 – Sep 2020

New York City, USA and remote

- Created models and software to simulate the spread of Ebola in Congo to inform local epidemic response, reporting to regional UN stakeholders.
- Developed a novel method to mitigate dataset bias in mobile phone datasets.

### Financial Consultant

PwC (PricewaterhouseCoopers)

Sep 2014 – Sep 2015

Berlin, Germany and nationwide

- Developed mathematical models and software tools for risk management and pricing of financial products for major German banks, in SQL, Excel, VBA.

### Other experiences

- **Software Developer (part-time)** at Humboldt University Berlin (2016-2018): Developed a course management software with database and analytics dashboard for the Humboldt University Life Science Department, using Python Flask and SQL.
- **Data Scientist (Volunteer)** at [Correlaid](#) (2020-now): Analyzed user churn and user segmentation of a Citizen Science Platform, using clustering and network science methods.

## Education

### PhD in Theoretical Physics

Humboldt University Berlin

Feb 2016 – July 2022 (est.)

Berlin, Germany

- Thesis on „Human Mobility and Epidemic Spreading“
- Topics: Statistical Physics, Probability, Nonlinear Dynamics, Network Science

### M.Sc. in Physics

Technical University Munich

Oct 2011 – Mar 2014

Munich, Germany

### B.Sc. in Physics (Minor in Computer Science)

University Augsburg

Oct 2008 – Sep 2011

Augsburg, Germany

## Skills

- **Programming:** Python (7+ years), Javascript, Matlab, C++
- **Data Science & Machine Learning:** numpy, scipy, (geo)pandas, scikit-learn, tensorflow, pytorch
- **Front-End & Visualization:** matplotlib, plotly, D3.js, HTML, CSS, React, Tableau
- **Back-End & Ops:** SQL, Flask, Django, docker, pytest GitHub (Actions)
- **Project Management:** Jira, Confluence
- **Languages:** German (native), English (fluent), French (basic)

## Projects

- **NovaAI:** A conversational AI for language learning, built using Python (pytorch, Flask, pytest), deployed on AWS (using docker).
- **EpiCommute:** Software to simulate spatial epidemic spread under mobility, using Python (numpy, scipy).
- **moneypot:** A full stack financial trading application built in Python (Streamlit), PostgreSQL.
- **Tribes:** A civilization-building game, built in Javascript.

## Honors & Awards

- Humboldt Research Track Scholarship, Award for outstanding young researchers (2016)

## Certifications

- [Deep Learning Specialization](#), Coursera (2018)
- [Machine Learning \(Stanford\)](#), Coursera (2016)