

Julian Freyberg

Full-stack engineer with a data science background, building data-heavy web products end to end.

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📍 Heidelberg, Germany

WORK EXPERIENCE

Datawrapper ↗ · Full-Stack Engineer

Oct 2023 – present

- Develop the charting tool used by The New York Times, Reuters, The Washington Post and The Guardian
- Built real-time collaboration into the chart editor, so teams can work on the same chart together

kmapp ↗ · Co-Founder

May 2022 – present

- Co-founded a document search platform and built its full stack with FastAPI, Svelte & TypeScript

Data Science Group ↗ · Data Engineer (Part-time)

Jun 2019 – Aug 2023

- Built Python ETL pipelines that processed millions of tweets for research projects like EPINetz
- Managed the data across MongoDB, Postgres & Elasticsearch

heiCLOUD ↗ · Full-Stack Engineer (Part-time)

Dec 2017 – Jun 2019

- Worked on Heidelberg University's IaaS platform for its institutes
- Built a billing dashboard with Django and Chart.js that shows institutes their usage and costs

SELECTED PROJECTS

nx2dw ↗ · Open Source Library

Jan 2025

- Built a Python library that turns NetworkX graphs into Datawrapper scatterplots
- Published it as open source alongside a Datawrapper blog post

EPINetz ↗ · Research Project

Jan 2020 – Aug 2023

- Built an interactive platform for exploring political discourse on Twitter
- Collected the data and implemented the platform in Python and React

Svupa.js ↗ · Open Source Framework

Mar 2023

- Built a Svelte and Supabase framework for real-time apps
- Designed it around a single source of truth and optimistic updates

Measuring Education with OpenStreetMap ↗ · Geospatial Data Science Project

Jan 2023

- Showed that OpenStreetMap data predicts education levels well, in Germany and worldwide
- Collected, cleaned and analyzed the data, and presented the findings in a report

InformatiCup ↗ · National CS Competition

May 2022

- Optimized an NP-hard railway scheduling problem to minimize total passenger delay
- **Won first place** out of 30 submissions

Analysis of Topics discussed in Bundestag ↗ · Text Analysis Project

Mar 2021

- Extracted and analyzed the topics of Bundestag debates
- Used a novel unsupervised topic modeling approach

SKILLS

Programming	TypeScript, Python, SQL, R, Java, PHP, C#/C++
Frontend	Svelte, React, Tailwind, HTML/CSS
Backend	FastAPI, Django, Node
Data & ML	Pandas, NumPy, scikit-learn, PyTorch, Spark
Data stores	Postgres, Elasticsearch/OpenSearch, MongoDB, Redis, Supabase
Infrastructure	Docker, Kubernetes, AWS, GCP, Linux
Languages	English (full professional proficiency), German (native speaker)

EDUCATION

M.S. in Data and Computer Science · Heidelberg University · Grade 1.0

2020 – 2023

B.S. in Computer Science · Heidelberg University · Grade 1.7

2016 – 2020