Jan C. Brammer

location: Aachen, Germany
email: jan.c.brammer at gmail dot com
website: jancbrammer.github.io

I develop open source software for science. I strive to be a generalist and to keep complexity at bay. What I enjoy most are the somewhat pedestrian pursuits of the craft - refactoring, testing, profiling - and I appreciate the metaphor of software development as caring for a garden.

Experience

Software developer / RWTH Aachen / 2021-current

I'm implementing open source research-data-management-tools for inorganic chemists under the umbrella of the NFDI4Chem initiative, collaborating with a distributed team of developers and chemists.

Chemotion ELN
repository
Maintaining and extending an open source electronic lab notebook for chemists. International, distributed team of developers and chemists.

TUCAN
repository
Developing and maintaining a domain-independent (i.e., organic and inorganic chemistry) descriptor and identifier for chemical molecules.

Staff scientist / Radboud University Nijmegen / 2017-2021

Worked in research and development with tasks ranging from software development and data science to experiment design and the publication of scientific articles.

biofeedback application development
repository / article
Integrated heart and breathing sensor data into a virtual reality training to help Dutch police officers regulate acute stress. International, interdisciplinary collaboration of police, game developers, designers, and scientists.

Personal Projects / The Internet / ongoing

Description.

NeuroKit
repository / article
Implemented and maintain four core algorithms of one of the most
popular open source software projects for physiological sensor
data analysis. Remote, international, interdisciplinary
collaboration of developers and scientists.

biopeaks
repository / article
Developed and maintain an open source graphical user interface
for the interactive analysis of physiological sensor data.

Skills

- open source software development
- writing (e.g., technical documentation, scientific articles)
- data science (wrangling, visualization, machine learning,
  inferential statistics)
- physiological sensor data (electrocardiogram,
  photoplethysmography, breathing)
- real-time digital signal processing
- experiment design

Technologies

Languages: Python, Ruby, JavaScript, Bash
Version control & Collaboration: git, GitHub
DevOps: Docker, GitHub Actions
Testing: pytest, RSpec
Databases: Redis, PostgreSQL
Frameworks: PySide6 (Qt for Python)

Education

MSc Cognitive Neuroscience, Maastricht University, 2015-2017
BSc Psychology, Maastricht University & Concordia University
Montreal, 2012-2015