José C. García Alanis

CLINICAL SCIENTIST | DATA ANALYST | SCIENTIFIC SOFTWARE DEVELOPER | PHD CANDIDATE

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I'm a clinical and experimental psychologist with an extensive track record in statistical modelling and scientific software development using **Python** *(e.g., NumPy, Pandas, SciPy, scikit-learn),* **R**, *and* **Git**. *My work lies at the interface between science and clinical practice, bridging design and management of scientific projects with the application of clinical interventions in the field. I'm also an active member of the open source community and an advocate of open, reproducible, and robust scientific practices.*

Scientific experience

Philipps-Universität Marburg   *Marburg (Germany)*
RESEARCH FELLOW   *October 2019–Present*
- Build robust data cleaning and preprocessing pipelines that work reliably across multiple data sets.
- Optimise statistical analysis, data visualisation, and report process for multiple scientific projects.

Python Software Foundation   *Remote*
GOOGLE SUMMER OF CODE STUDENT DEVELOPER   *May 2019–September 2019*
- Enhance statistical inference capabilities of the Python package MNE-Python.

McConnell Brain Imaging Centre, Montreal Neurological Institute   *Montreal (Canada)*
VISITING RESEARCHER   *January 2016–April 2016*
- Multivariate analysis of large clinical data sets.

Philipps-Universität Marburg   *Marburg (Germany)*
RESEARCH AND TEACHING ASSISTANT   *October 2014–September 2019*
- Plan, conduct, and evaluate psychological / neuroscientific experiments.
- Design study protocols, develop methods to assess compliance and behavioral performnace.
- Programming of human-computer interfaces, real-time expermental control.
- Teaching of undergraduate students (experimental design, data anaylsis plans, data visualisation).

Education

Philipps-Universität Marburg   *Marburg (Germany)*
DR. RER. NAT. (PHD) IN PSYCHOLOGY   *Jan 2015–Present*
- Doctoral Thesis: The electrophysiology of individual differences in executive-dependent descision making.

Philipps-Universität Marburg   *Marburg (Germany)*
GERMAN DIPLOM IN PSYCHOLOGY (M.SC. EQUIVALENT)   *October 2008–September 2014*
- Majors: Clinical psychology, biological and experimental psychology.

Clinical work

Child and Adolescent Psychology, Philipps-Universität Marburg   *Marburg (Germany)*
SCIENTIST-PRACTICIONER   *October 2019–Present*
- Carry out diagnostics and intervetions within clinical reserach projects.

Dep. of Psychotherapy, Schön Klinik   *Bad Arolsen (Germany)*
CLINICAL RESEARCH INTERN   *May 2014–September 2014*
- Database and project management.

Dep. of Psychiatry and Psychotherapy, Charité Universitätsmedizin   *Berlin (Germany)*
CLINICAL INTERN   *September 2013–Dezember 2013*
- Patient recruitment, diagnostics.

Skills

Analytics

STATISTICAL MODELLING, DATA SCIENCE, REPRODUCIBLE RESEARCH

Programming

PYTHON (ADVANCED), R (ADVANCED), GIT (ADVANCED), SQL

Packages

NUMPY, PANDAS, SCIPY, SCIKIT-LEARN, TIDYVERSE, LME4

Workshops

Nov. 2020 **Using Multivariate Statistics to Analyse EEG Data**: Instructor / Organiser (Brainhack, Global)
Virtual event. Researchers from across the globe work together on innovative projects.

Nov. 2019 **Jupyter Nootebooks and Python essential training**: Instructor / Organiser (Brainhack Marburg, Germany)
Hackathon for researchers to collaborate on open science / neuroimaging projects.

Sep. 2019 **Machine Learning for Neuroscientists**: Teaching Assistant (DZNE, Magdeburg, Germany)
Training with relevant neuroimaging software packages and tools for machine learning.

June 2018 **Library Carpentry**: Teaching Assistant (University Library Marburg, Germany)
Create, analyse, and maintain sustainable data ressources with Python.

Publications

1. Gau, R., Noble, S., Heuer, K., Bottenhorn, K., Bilgin, I. P., Yang, Y.-F., Huntenburg, J., Bayer, J. M. M., Bethlehem, R., Rhoads, S. A., & others. (2021). *Brainhack: developing a culture of open, inclusive, community-driven neuroscience*.

2. García Alanis, J. C., Baker, T. E., Peper, M., & Chavanon, M.-L. (2019). Social context effects on error-related brain activity are dependent on interpersonal and achievement-related traits. *Scientific Reports*, *9*(1), 1–14.

3. Vainik, U., Baker, T. E., Dadar, M., Zeighami, Y., Michaud, A., Zhang, Y., García Alanis, J. C., Misic, B., Collins, D. L., & Dagher, A. (2018). Neurobehavioral correlates of obesity are largely heritable. *Proceedings of the National Academy of Sciences*, *115*(37), 9312–9317.

4. Bahn, D., Vesker, M., García Alanis, J. C., Schwarzer, G., & Kauschke, C. (2017). Age-dependent positivity-bias in children's processing of emotion terms. *Frontiers in Psychology*, *8*, 1268.