(+43) 6886-4430826
Salzburg, Austria
m.s.s.ameen7@gmail.com

Mohamed Ameen
Neuroscientist | Data Scientist | Pharmacist

website
github repo
linkedin

Interdisciplinary academic researcher with 8+ years of experience in cognitive neuroscience research, applying machine learning and advanced analytics to neural, physiological, and behavioral data. Proven expertise in leading research on sleep, M/EEG, and cognition. Currently transitioning into industrial research with a focus on digital healthcare, biomarker discovery, and health technology innovation.

Skills

Tools and Languages	Proficient:	Python, Matlab, Jupyter Notebook
	Familiar:	R, Git, LaTeX, MarkDown
Machine Learning		SciKit Learn, PyTorch, feature engineering, model evaluation
Quantitative Research		EEG, MEG, fMRI, HRV, biosensors $\rightarrow$ acquisition to analysis
Statistical Modelling		Regression, mixed-effects models
Communication		Arabic (native), English (fluent), German (ÖsD B2), French (limited conversation)

Technical Experience

Senior Scientist / Center for Cognitive Neuroscience Salzburg 04 2024 — Present
Salzburg University *Salzburg, Austria*

- Leading cross-disciplinary projects and managing research teams that analyze complex physiological data.
- Developing machine learning pipelines using PyTorch to predict biomarker changes from sleep data.
- Building automated workflows in Python, MATLAB, and R for advanced data preprocessing and analysis.

Visiting scholar / Biomedical Engineering 10 2022 — 02 2023
Columbia University *New York, USA*

- Led a cross-institutional initiative to develop robust data analysis pipelines for EEG and iEEG data.
- Applied computational modeling and neural signal simulation with automated workflows via GitHub.
- Produced a first author paper on open access methods introducing a novel perspective on neural data analysis.

PhD candidate / Lab for Sleep and Consciousness research 09 2019 — 03 2024
Salzburg University *Salzburg, Austria*

- Donec volutpat turpis et placerat pharetra.
- Sed sit amet sem facilisis, scelerisque lectus aliquam, accumsan purus.
- Aliquam at urna congue dolor luctus sodales.
- Quisque vitae tortor at elit tincidunt molestie sed ac quam.

Research associate / R&D 03 2019 — 08 2019
Proschlaf GmbH *Salzburg, Austria*

- Tested a biometric device designed to measure sleep parameters, including heart rate and respiration.
- Conducted descriptive analyses to support individualized sleep diagnostics and interventions.
- Reported research insights to key stakeholders, ensuring informed decision-making.

Predoctoral research assistant / Lab for Sleep and Consciousness research 03 2017 — 02 2019
Salzburg University *Salzburg, Austria*

- Conducted Digital Biomarkers studies to validate wearable sleep technology (cited in 60+ studies).
- Wrote a successful grant application, securing funding (115K) for a Ph.D. position in the lab.

Earlier roles 09 2015 - 02 2017

- **Senior pharmacist**, *S.A.T pharmacies, Egypt. (5 months)*
- **Research assistant**, *University of Cambridge, UK. (6 months)*
- **Research assistant**, *University Clinic Freiburg, Germany. (5 months)*

Education

PhD in Cognitive Neuroscience, *University of Salzburg, Austria* 03 2024
MSc in Neuroscience, *University of Strasbourg, France* 06 2016
BSc in Pharmacy, *Cairo University, Egypt* 06 2013
  ○ *recognized as equivalent to BSc. in Pharmacy from the **University of Vienna** (2025)*

(+43) 6886-4430826
Salzburg, Austria
m.s.s.ameen7@gmail.com

Mohamed Ameen
Neuroscientist | Data Scientist | Pharmacist

website
github repo
linkedin

PUBLICATIONS

2025: Selective preservation of prediction-related signals in human sleep. *Current Biology* (co-author)
2024: The Temporal Dynamics of Aperiodic Neural Activity Track Changes in Sleep Architecture. *BioRxiv* (1st author)
2024: Neural speech tracking in newborns: prenatal learning and contributing factors. *BioRxiv* (co-author)
2023: Sleep Modulates Motor Adaptation and Task-related Beta Oscillations. *JSR* (1st author)
2022: The Brain Selectively Tunes to Unfamiliar Voices during Sleep. *Journal of Neuroscience* (1st author)
2020: Procedural memory consolidation is associated with heart rate variability and sleep spindles. *JSR* (co-author)
2019: About the Accuracy and Problems of Consumer Devices in the Assessment of Sleep. *Sensors* (1st author)

Conference papers:
2019: On the Reliability of Consumer Devices for the Assessment of Sleep. *41st IEEE EMBC Conference* (co-author)

FELLOWSHIPS & AWARDS

€45k Postdoctoral Fellowship – Salzburg University | Early Career Independent Researcher. 2024
€6k Young Investigator Award – German Sleep Society (DGSM). 2023
€115k DOC doctoral Fellowship – Austrian Academy of Sciences (ÖAW) 2019

OUTREACH

7 Oral presentations and 15+ Poster presentations at international scientific conferences 2017–2025
Guest Editor, Frontiers in Sleep - Topic: Understanding Conscious Experience during Sleep 2024-current
Guest lecturer, University of Salzburg – EEG analysis and Neuropsychology of consciousness 2023–2024
Guest lecturer, EFPSA – Workshop on the Neuroscience of Dreams 2022