Radnyee Rajesh Sarvadnya

Business Psychology graduate pursuing a career in Computational Neuroscience; seeking an opportunity to combine my skillsets in both disciplines.

Education

- **Loughborough University** · Masters in Business Psychology (MSc) · 2023-24 – Merit (69%)
- **Savitribai Phule Pune University** · BA, Psychology · 2020-2023 – Distinction (88%)

Experience

- **Neuroscience Research Data Analyst** · Stealth Startup · Jan 2025–Present – developed a comprehensive and feature-rich EEG analysis pipeline in Python:
  - *Tools:* `mne`, `nilearn`, `fooof`, `networkx`
  - *Features:* functional connectivity analysis, microstate analysis, sLORETA, detection of EEG biomarkers for ASD and ADHD, and epileptic form detection.
- **Freelance projects** · Nov 2024–Present – worked as a research assistant for neuroscience projects and groups:
  - **Research Assistant** · Nov 2024–Dec 2024 – Led development of research proposal on BCI applications for non-verbal autism, including comprehensive literature review and methodology design for a Paris-based neuroscience laboratory.
  - **Research Assistant** · MIT · Nov 2024 – Conducted two comprehensive and systematic literature reviews on connectomics and brain simulation research for a group at MIT
- **Center for Mental Health** · May–Oct 2022 · Psychology Intern Pune, India – Shadowed multiple Psychologists and assisted in psychological assessments.
- **Shree Therapy Centre** · Aug 2021–April 2022 · Psychology Intern, Pune, India – Shadowed Occupational and Speech Therapist, working with Autism, ADHD, Learning Disorders and Cerebral Palsy.

Courses and workshops attended

- **Workshop on Neurorehabilitation after Traumatic Brain Injury** · Oct 2024 · University College London.
- **Principles of Neuroimaging – Coursera** · Oct 2024 · Course by John Hopkins University. Score: 91.8%; certificate.
- **Understanding the Brain: The Neurobiology of Everyday Life – Coursera** · Sept 2024 · Intermediate Course on Neuroanatomy by University of Chicago.
- **Computational Neuroscience** · Nov 2024 · University Of Washington.
- **Principles of fMRI Part 1 – Coursera** · Nov 2024 · Course by John Hopkins University.

Skills

- **Technical skills:** Python (`pytorch`, `scipy`, `sklearn`, `MNE`), Matlab (`simulink`), SPSS, EEG and MRI reading, neural networks, convolutional neural networks (CNNs)
- **Psychology-related:** Psychological assessments, Motivation theory, Cognitive biases, Nudge theory, Speech therapy, Occupational therapy, Academic writing, Teamwork, Leadership, Microsoft Excel

Current projects

- **BCIs for Myasthenia Gravis** – Idea detailed in my substack post: exploiting adaptive neurofeedback to reroute neural signals to BCI devices; currently working on a proof-of-concept in MNE-Python.

- **Transcranial Magnetic System for ADHD** – Studying effect of TMS on cognitive and motor enhancement in children with ADHD, conditional on different gene variations (DRD4, DAT1, COMT, etc)

Links

- Email: sarvadnyar21@gmail.com
- Website: radnyees.github.io
- Blog: radnyees.substack.com
- Github: github.com/radnyees