Soumya Kaim

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EDUCATION

1. Research Master Behavioral and Cognitive Neuroscience: Cognitive Modeling (MSc)
University of Groningen, Groningen, The Netherlands)   *(September 2022 – ongoing)*
- Current grade of **8 out of 10**. Two thesis (one ongoing) part of the curriculum.
- Program Committee and Student Council Member for the enrolled track.

2. Clinical Psychology (MSc)
National Forensic Sciences University, Gandhinagar, Gujarat, India   *(July 2019 - August 2021)*
- Passed masters with a CPI of **8.12 First Class with Distinction**.

3. Applied Psychology (BA (Honors))
University of Delhi (SPMC), New Delhi, India   *(July 2016 - May 2019)*
- Passed bachelors with a CGPA of **7.608 First Class** and **NCC "C" Certificate**.

RESEARCH EXPERIENCE

4. **Sensorimotor confusion and loudness of voices in healthy adults: An EEG/fNIRS Study**
Supervisors: Dr. Curcic-Blake (BSCS, UMCG)   *Major Thesis (ongoing)*
- Piloted an EEG/fNIRS study to study robot induced sensorimotor confusion where responsibilities included developing the optimum auditory stimuli, the experiment logistics and timeline, collecting EEG and fNIRS data to troubleshoot any every issue with the systems as well as the robot's interference with the signals.
- Developed custom python scripts for data management and data analysis for both behavioral data (false positive rate, accuracy and precision) and EEG (automate preprocessing, feature extraction, and statistical analysis, contributing to the reproducibility and scalability of research findings).

5. **Genetic Variation Influences Social Interaction and Sleep Need in** *Drosophila melanogaster*
Supervisors: Dr. J-C Billeter (PI) and Adithya Sarma (PhD supervisor) (GELIEFS) Grade: 8.5/10   *Minor Thesis (July 2023)*
- Canton-S (CS) and Oregon-R (OR) strains were used to record **1638 hrs (68days)** of free movement in custom social arena.
- **5+ Custom python scripts** were developed for analyzing social interaction, sleep and locomotion in addition to using TREX and GraphPad Prism.
- Key findings include that CS flies had 27.39% more interactions and 34.5% higher sleep compared to OR flies in grouped condition. Both social interactions and sleep were 9.8% lower during light phase as compared to dark phase. There was no significant difference in locomotion between grouped and isolated flies for both the strains.

6. *Assessment of Response Inhibition, Impulsivity and Handedness to Emotional Faces and Scenes: An EEG/ERP Study (A Systematic Review)*
Supervisor: Dr Proshanto Kr Saha (IBS) Grade: 8/10   *Master's Dissertation (July 2021)*
- Conducted a qualitative review of literature on how impulsivity and response inhibition and handedness are affected by emotional faces and scenes when investigated by EEG/ERP paradigm.

7. **Alexithymia and Substance Abuse: A Study on Prevalence and its Relationship with Anxiety, Adjustment, Self-esteem and Locus of Control**
Supervisor: Dr Virendra Pratap Yadav Grade: 9/10   *Bachelor's Dissertation (July 2019)*
- Collected psychometric data on various questionnaires from 150 healthy and clinical populations.
- There was a significant difference in alexithymia in the two groups.

PUBLICATION

The human neuropsychiatric risk gene Drd2 is necessary for social functioning across evolutionary distant species (Ike at al., 2023) (Molecular Psychiatry)   https://doi.org/10.1038/s41380-023-02345-z
- Developed custom python script for analysis of social interaction 500 minutes of over 50 samples.
- Planned and managed the collection and recording of flies for the experiment.

AWARDS AND MERIT CERTIFICATES

1. **Best Intern award** at Unique Psychological Society for excellent performance at Clinical Psychology Internship.

2. **Certificate of participation** for Reporter position at NDIM MUN 2018.

3. Received two **Letter of Appreciation** each from Delhi Municipal Community for Social Work, and from UPS internship for excellent performance.

TECHNICAL SKILLS

1. **Statistical Analysis**: Experienced in using SPSS and Python for advanced statistical analysis, including ANOVA, regression analysis, and algorithm development for data segmentation and classification.

2. **Neuroimaging Techniques**: Basic experience with neuroimaging tools like MNE-Python for EEG/ERP data analysis.

3. **Programming and Analysis**: Proficient in Python, with experience in developing scripts for data analysis, including psychometric and signal processing and statistical analysis in EEG/ERP studies.

4. **Behavioral Research**: Proficient in conducting **psychometric tests** as well as skilled in managing Drosophila colonies and conducting **behavioral assays** using the Drosophila Activity Monitor system.

5. **Data Visualization**: Expertise in creating scientific illustrations and figures with BioRender, Canva, and Paint3D.

6. **Method Development and Innovation**: **Developed novel methods** for analysis of long-term monitoring of social interactions, sleep and locomotion in Drosophila, significantly advancing research capabilities.

SOFT SKILLS

1. Project Management
- Led and coordinated 3 research projects (Masters dissertation, Minor thesis and major thesis), ensuring timely completion and adherence to project goals.
- **Managed a team of over 15 clinical psychology interns** for 5 months at DeepOrigins. Reviewed and delegated work for conducting complementary psychotherapy sessions and assessments.

2. Initiative and Independence
- Proactively identified and resolved experimental issues, demonstrating strong problem-solving abilities.
- Took initiative in conducting case history and mental status examinations for **10+ patients** in Acute and Chronic Wards at the Hospital of Mental Health, Ahmedabad.

3. Team Interaction and Leadership positions
- Excelled in collaborative environments, effectively interacting with colleagues and supervisors.
- Worked extensively with orphans, elderly, and shelter home residents at Unique Psychological Servies (UPS) and whilst volunteering for Leaders for Tomorrow (LFT), Igniting Young Minds (IYM) and World Wild Life Fund for Nature (WWF) over a span of **3 years**.
- Actively participated as members of **Program Committee** and **Student Counsil** at University of Groningen.

4. Effective Communication
- Delivered clear, concise presentations and reports, effectively communicating complex research methods and findings.
- Engaged with diverse audiences, including delivering a **guest lecture** on Animation and Psychology to VFX students at Narsee Monjee College of Commerce and Economics.

5. Critical Analysis and Interpretation
- Demonstrated strong analytical skills in interpreting research data and drawing meaningful conclusions.
- Participated in organizing and presenting at the International Conference of Cognitive Neuroscience Society India (2021), contributing to discussions on emerging trends in neuroscience and the **Summer Symposium** at University of Groningen (2023) respectively.

6. Learning and Adaptability
- Quickly adapted to new challenges and improved skills based on feedback, showing significant growth in research capabilities.
- Volunteered to teach and mentor children from underprivileged backgrounds at Igniting Young Minds (IYM), adapting teaching methods to suit different learning needs.
- Received basic military training in small arms and drill for **3 years as a Cadet at National Cadet Corps of India**. Have achieved "B" and "C" Certificates and attended two CATC camps for knowledge and skills enhancement.