

Curriculum Vitae/Resume

Pratitee Ghosh

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EDUCATION

• Universitat de Barcelona <i>Masters in Neuroscience ; GPA : 7.68/10</i>	Spain 2024 – 2025
• University of Calcutta <i>B.Sc. (Honors) Chemistry ; GPA: 7.98/10</i>	India 2020 – 2024

RESEARCH PROJECTS

• Whole-Brain Modelling and Whole-Brain Dynamical Analysis in Alzheimer’s disease <i>Master Thesis</i> <i>Prof. Gustavo Deco and Dr. Jakub Vohryzek, Universitat Pompeu Fabra, Barcelona, Spain</i> <ul style="list-style-type: none">◦ Whole-brain Modelling: Applied Hopf bifurcation models and gradient algorithms to derive Generative Effective Connectivity(GEC) matrix from ADNI data.◦ Biomarker: Identified novel network biomarkers for early disease stages, potentially enabling better diagnosis and monitoring.	Spain Nov 2024 - Jul 2025
• Investigating Bold Activation <i>Research Training</i> <i>Neuromatch Academy</i> <ul style="list-style-type: none">◦ HCP dataset : Performed Exploratory Data analysis for functional connectivity of Default Mode Network and Emotional Processing using Python with the data extracted from the Human Connectome Project.◦ Contrast Study : Examined the difference between the functional connectivity for fear versus neutral emotion processing◦ Prediction : Investigated the use of the generalized linear model for the prediction of the emotional states.	India Jun 2024 - Jul 2024
• Drug Design <i>Research Assistant</i> <i>Prof.Nayim Sepay, Ph.D., Lady Brabourne College, Kolkata</i> <ul style="list-style-type: none">◦ Objective: Study protein-small molecule interaction of DPP-4 to identify suitable inhibitors to control and treat type 2 Diabetes◦ Protein Data Bank: Analysed data of 106 protein-ligand crystal structures by curating from Protein Data Bank and studying their bonding structure and active residue sites.◦ Results: Residue site of Y662, E205 and Y547 were the most active site for binding, over 30% of ligands binded at this sites, and conventional H-bond was the type of major bonding and is responsible for almost 1/3 fraction of all bonds.	India Sept 2022 - July 2023

INTERNSHIPS

• Mind’s eye <i>Psychological Counselling</i> <i>Dr. Rupa Talukdar</i> <ul style="list-style-type: none">◦ Counselling: Shadowed Dr. Talukdar in clinical sessions and assisted her by taking meticulous notes and creating comprehensive reports.	India Mar 2024 - May 2024
• Indian Institute of Management Mumbai <i>Data Science</i> <i>Prof. Manoj Kumar Tiwari</i> <ul style="list-style-type: none">◦ Network Data: Constructed a metro network by cleaning and pre-processing spatial metro ridership traffic data.◦ Criticality Analysis: Extracted the time-varying critical metro stations based on the temporal centrality of the network.	India Dec 2023 - Jan 2024

RELEVANT COURSEWORK

◦ Graduate <ul style="list-style-type: none">* Analysis of Neuroimage	* Computational Neuroscience	* Basics of Cognitive Neuroscience
◦ Deep Tech Brain Program <ul style="list-style-type: none">* Deep Tech Brain: Artificial Intelligence* Deep Tech Brain: Virtual Reality	* Deep Tech Brain: Neuromodulation	* Deep Tech Brain: Neuroimaging
◦ Coursera <ul style="list-style-type: none">* Advanced Neurobiology I	* Principles of fMRI	* Fundamental Neuroscience for Neuroimaging

SKILLS AND ACHIEVEMENTS

◦ Got selected for the MSc in Cognitive Science program at IIT Gandhinagar from a pool of 150 shortlisted for interview.
◦ Programming Language: Python, MATLAB, JAVA and Fortran
◦ Software: Excel, Discovery Studio, Unity, SPM, FSL, DTIstudio