

Sahiti Chebolu

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EDUCATION	IMPRS MMFD, GTC, Tuebingen Graduate Studies	2021-Present
	Indian Institute of Science Education And Research, Pune BS-MS(integrated) <i>CGPA: 9.6/10</i>	2016-2021
	AECS Magnolia Maaruti PU College, Bangalore Pre-University <i>Score in Higher Secondary Exams: 95 percent</i>	2014-2016
	Bethany High School, Bangalore Schooling (affiliated to Indian Certificate of Secondary Education board) <i>Score in Senior Secondary Exams: 96 percent</i>	2001-2014
PUBLICATIONS	Chebolu, S., Dayan, P., & Lloyd, K. (2021). Vigilance, arousal, and acetylcholine: Optimal control of attention in a simple detection task. Preprint.	
	Chebolu, S., Dayan, P., & Lloyd, K. (2022). Fast ACh signals and the optimal control of attention in a detection task. Poster presented at Computational and Systems Neuroscience Meeting (COSYNE 2022), Lisboa, Portugal.	
PROJECTS	Computational role of phasic Acetylcholine	August 2020-June 2021
	Aim of the project is to understand the computational role of phasic Acetylcholine, especially in the context of attentional control and decision making under uncertainty. To this end, we modelled and analysed data from a Sustained Attention Task using a variety of methods like hidden Markov Models, Bayesian methods, hierarchical/ mixed models, Markov decision processes etc. Supervisor: Dr Kevin Lloyd (Prof Peter Dayan's lab), Max Planck Institute for Biological Cybernetics	
	Using Recurrent Neural Networks to Simulate Behavior	Summer 2019
	Aim of the project was to use Recurrent Neural Networks (RNNs) to model decision making tasks in rats, especially those that involve sequential effects (dependence of trials on previous trials) to gain insights into strategies rats employ while performing such tasks. Supervisor: Prof. Ehsan Arabzadeh, The ANU, Canberra	
	Oscillations in Entorhinal Cortex motifs	Spring 2019
	Aim of the project was to use the concept of Stochastic Resonance to find a subspace of the parameter space where there is periodic activity in hippocampal network motifs. Supervisor: Prof. Collins Assisi, IISER Pune	
COURSES TAKEN	Biology Mathematical and Computational Biology, Basic and Advanced Neuroscience, Systems Biology, Biostatistics, Bioinformatics, Animal Behavior, Ecology and Evolu-	

tion, Cell and Molecular Biology

Mathematics

Graph Theory, Algorithms, Univariate and Multivariate Calculus, Linear Algebra, Probability and Statistics, Statistical Inference, Nonlinear Dynamics, Operations Research, Cryptography, Introduction to Proofs, Group Theory

Neuroscience

Sensory Systems, Neural Dynamics, Neurophysiology, Neural Experimental Techniques, Neural Coding, Computational Cognitive Science

Machine Learning and Data Science

Statistical and Probabilistic Machine Learning, Neural Data Science, Signal Processing, Data Science

PROGRAMMING LANGUAGES

Python, MATLAB

ACADEMIC ACHIEVEMENTS

Scholarships

Australian National University's Future Research Talent Fellowship:
Among the 50 selected from the top colleges from all over India 2019
KVPY Scholarship, from Dept. of Science and Technology(DST), Govt Of India : Ranked 337(all India) 2015
NTSE State Scholarship (from DST): Ranked 7 (Karnataka State) 2012

Talent Camps

Vijyoshi Science camp: At IISc Bangalore 2015
NTSE DST-INSPIRE Science camp: At Bangalore University 2015

Competitive Exams and Competitions

JEE(advanced): Considered one of the toughest undergrad entrance tests, Ranked 3080 out of approx. 2 Hundred Thousand Students 2016
Karnataka Common Entrance Test: Ranked 14 (Engineering) and 51(medicine) out of 1.7 Hundred Thousand students 2016
NSEB(biology olympiad): Merit for being in the statewide top 1 percent 2016

Awards

Selected for the DAAD WISE summer research scholarship 2019
Academic Excellence Prize: for performance in Semester 4 (Spring 2018) at IISER Pune 2019
Times Of India certificate of excellence and Birla Award: for performance in 10th grade ICSE Board examinations 2014

COMMUNITY SERVICE

Teacher Volunteer: At Disha (IISER- Pune's social outreach programme) 2016-2018
Volunteer for Spread the Smile program: Taught students in remote villages of Maharashtra 2017

EXTRA-CURRICULAR ACTIVITIES

Bharatanatyam Dancer (for about 10 years)
Volunteer at SPIC-MACAY, IISER Pune: An all-India initiative to preserve Indian Culture 2016-2018
Part of the Co-ordinating team for Karavaan: The IISER Pune cultural fest 2017 and 2018