Ashwin Ramaswamy

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EDUCATION

M. Tech. – Computational Biology, *2017*
Bioinformatics Centre, Pondicherry University
B. Tech. – Pharmaceutical Sci. and Tech., *2014*
Institute of Chemical Technology, Bombay

PROFESSIONAL EXPERIENCE (TEACHING AND EDUCATION)

August 2021 - Current	**Teaching Fellow at Ashoka University Department of Psychology** Course: Introduction to Neuroscience Handled assessment, grading, course management, recitation sessions
August 2021	**Lead Teaching Assistant at Neuromatch Academy (Deep Learning Summer school)** Guided students through state-of-the-art techniques in deep learning in a 3 week rigorous summer school.
June 2021 - Current	**Fellow at Agastya Foundation** Designing curricula and lesson plans for digital content for school mathematics (standards 6th -12th).
March 2021 – June 2021	**Visiting Lecturer (Data Analytics) at Krea University** Taught a trimester-long course to first year undergraduates (science, commerce, and humanities backgrounds). Developed all pedagogical and assessment materials, including lesson plans and assessments.
July 2020	**Teaching Assistant at Neuromatch Academy** • Taught core topics related to Computational Neuroscience such as statistical modelling, Machine Learning, Network modelling, in a rigorous three-week course. • Guided students through a research project in computational neuroscience. • Taught Python programming in pre-course workshop.

PROFESSIONAL EXPERIENCE (RESEARCH)

Research Project (Computational Neuroscience) November 2018 – March 2020 IISc, Bangalore Advisor – Dr. Aditya Murthy	**The Role of Explicit Cognitive Processing in Motor Learning** • Tested the hypothesis that visuomotor adaptation has a voluntary component whose contribution is modulated by perceptual load. • Found the possibility of a push-pull mechanism between voluntary and involuntary components of sensorimotor learning where contributions are modulated by perceptual load.
Sep - Nov 2017 IISc, Bangalore Mentor – Dr. SP Arun	**Characterizing perceptual representation of composite visual stimuli** • Determined perceptual similarity of abstract composite stimuli using inverse reaction time as a behavioural metric

Master's thesis Project Jan - Apr 2017 Pondicherry University Advisor – Dr. Archana Pan	**Agent-Based Modelling of the Emergence of Sexual Selection in Anisogamous species** • Tested the hypothesis that differences in sexual selectivity can emerge between sexes with differently sized gametes in otherwise identical populations.

COURSEWORK

Neuroscience	Neurobiology, Neural Signal Processing, Systems and Cognitive Neuroscience
Mathematics	Applied Probability and Statistics, Linear Algebra, Introductory Calculus
Computer Science	Design and Analysis of Algorithms, Algorithms in Computational Biology, C programming
MOOC's	Dynamical Systems and Chaos; Machine Learning; Artificial Intelligence – Search Methods for problem solving

SKILLS

- Undergraduate education – pedagogy and assessment
- Educational content creation
- Experiment Design in cognitive and behavioural neuroscience
- Analysis of behavioural data including motion tracking and eye tracking
- **Relevant Software Packages:** TEMPO/VIDEOSYNC, Psych-Toolbox
- **Programming Languages:** C, C++, MATLAB, Python

FELLOWSHIPS AND MERIT SCORES

- **Graduate Aptitude Test in Engineering (Biotechnology) 2017 –** ~99 percentile[1], All India Rank - 78

Footnotes

1. Based on estimate of total candidates appeared reported here.