

Ashwin Ramaswamy

Interdisciplinary educator with research experience in cognitive science and data science.

[Email](#) ; [LinkedIn](#) ; [YouTube/Teaching Sample](#)

EDUCATION

M. Tech. – Computational Biology, 2017

Bioinformatics Centre, Pondicherry University

B. Tech. – Pharmaceutical Sci. and Tech., 2014

Institute of Chemical Technology, Bombay

PROFESSIONAL EXPERIENCE (EDUCATION)

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| August 2022 -
Current | Senior Interactive Developer at Educational Initiatives Pvt. Ltd. <ul style="list-style-type: none">• Creating pedagogical content for Ei's Adaptive Learning Tutor, MindSpark.• Developing interactives and games for K-12 Maths, Science, Languages, and Social Science based on Javascript.• Ideating new interactives based on engagement and performance data. |
| August 2021 –
May 2022 | Teaching Fellow at Ashoka University Department of Psychology <ul style="list-style-type: none">• Conducted weekly Discussion Sessions to aid learning of class materials• Developed weekly MCQ-style quizzes for assessment• Made complex ideas and research papers accessible for students from different backgrounds• Managed course logistics, grading, and office hours Courses: (a) Introduction to Neuroscience (60 students), (b) Cognitive Psychology (57 students) |
| August 2021 | Lead Teaching Assistant at Neuromatch Academy (Deep Learning Summer school) <ul style="list-style-type: none">• Guided 10 students through state-of-the-art techniques in deep learning in a 3-week rigorous summer school.• Led TA training sessions to help TA's create active learning environments in their cohorts. |
| March 2021 –
June 2021 | Visiting Lecturer (Data Analytics) at Krea University <p>Taught a trimester-long course to 25 first year undergraduates (science, commerce, and humanities backgrounds).</p> <ul style="list-style-type: none">• Developed all pedagogical materials, including lesson plans, slides, simulations, and activities• Developed all assessment materials, including quizzes, assignments, and final exams• Handled course logistics, grading, and office hours |
| June 2021 –
January 2022 | Instructional Designer for Mathematics at Agastya Foundation <ul style="list-style-type: none">• Designed educational digital games for K-12 mathematics.• Tested prototypes with age-appropriate subjects. |
| July 2020 | Teaching Assistant at Neuromatch Academy <ul style="list-style-type: none">• Facilitated learning of topics and techniques in Computational Neuroscience research for 7 undergraduate participants.• Guided students through a research project in computational neuroscience.• Taught Python programming in pre-course workshop. |

PROFESSIONAL EXPERIENCE (RESEARCH)

Research Project (Computational Social Science)

January 2022 - Current

Agent-Based Modelling of Opinion Polarization

Independent project in collaboration with [František Kalvas](#), [Michael Slater](#), and [Ashley Sanders-Jackson](#). My contributions include:

- Literature review and documentation
- Model conception and implementation in NetLogo
- Data interpretation

Research Project (Neuroscience)

November 2018 – March 2020

IISc, Bangalore

Advisor – [Dr. Aditya Murthy](#)

The Role of Explicit Cognitive Processing in Motor Learning

- Performed laboratory experiments with human subjects and behavioural modelling.
- Tested the hypothesis that visuomotor adaptation has a voluntary component whose contribution is modulated by perceptual load.

Lab Rotation Project

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.

SKILLS

- Experiment Design in cognitive and behavioural neuroscience
- Education – pedagogy and assessment
- Eye-tracking and motion tracking
- Programming Languages: Python, JavaScript, MATLAB, C
- Educational content creation – videos, text, and interactives

FELLOWSHIPS AND MERIT SCORES

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

PUBLICATIONS

- František Kalvas, Ashwin Ramaswamy, Ashley Sanders-Jackson & Michael Slater (2023). *Identity causes polarization: Advancing the Hegselmann-Krause model focusing on identity groups*. [Manuscript Submitted].
- Sameer Salunkhe, Ekjot Kaur, Ashwin Ramaswamy, Ketaki Patkar, Shilpee Dutt. (2015) *Subtype-specific DNA damage dependent and independent functions of damage repair proteins confer chemo-resistance to leukemia*. [abstract]. In: Proceedings of the 106th Annual Meeting of the American Association for Cancer Research; 2015 Apr 18-22; Philadelphia, PA. Philadelphia (PA): AACR; Cancer Res 2015;75(15 Suppl):Abstract nr 3848. doi:10.1158/1538-7445.AM2015-3848