

Personal information

Name **Nishant Jana**

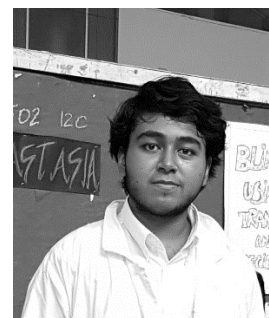
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Nationality

Date of birth 25th November, 1999

**Affiliations**

Primary Undergraduate Student, 2017-2021
SRM Institute of Science and Technology, Kattankulathur, Chennai

Additional User-Developer, TOPAS MC, a monte-carlo simulation toolkit based on Geant4
A 529-member group (global) of medical physicists and clinical experts.

Research Exp.

Position Research student; (visiting) Dec 2019 - present

Guide Dr. Sheeba Vasu, Behavioural and Neurogenetics Laboratory, JNCASR, India

Area of Research Redox Rhythms in circadian pacemaker neurons (Glutathione and Peroxiredoxin)
Redox state mapping in-vivo snapshots and Ex-Vivo CNS cultures

Position Research student; May 2019 – present.

Guide Dr. S. Sahabudeen, Department of Biotechnology, SRM IST, Chennai, India

Area of Research BPA induced Autism Spectrum Disorder model in Drosophila

Education

Degree Pursued Bachelors of Technology, Biotechnology; (2017-2021)

Institution SRM Institute of Science and Technology, Kattankulathur, Chennai, India.

12th AISSCE 92% PCM-B(E), 2017

Institution R.N. Podar School, Affiliated to CBSE, Mumbai, India

10th AISSE 9.4 CGPA, 2015

Institution R. N. Podar School, Affiliated to CBSE, Mumbai, India

Conferences Attended

JAN 2020 APDRC5 – Asia Pacific Drosophila Research Conference 5 (to attend)
poster: “Comprehensive study on the Bisphenol-A induced Drosophila model for Autism Spectrum Disorders with co-treatment by Cerium oxide Nanoparticles and U0126 MAP Kinase inhibitor: genotoxicity, oxidative stress, apoptosis and behavioural irregularities.”

FEB 2019 Accelerating Biology, 2019. BRAF – CDAC, IISER-Pune.

Notable Events Presented Poster on “Computing Machinery and Evolutionary Survival”
Met Joseph Perl, Creator-developer of TOPAS MC, currently part of the project.

Computer Skills

Operating Systems

Pop!_OS 20.04 on Linux 5.04 Kernel (preferred), Windows10.

Programming Languages

Python (****) (Foobar lvl 3 completed)(started learning: June 2020)
MATLAB (****)
R (***)

Communication Skills

Languages in which fluent

English, Hindi, Bengali.

Cultural Exposure

Cities lived in

Mumbai (Khar,12 years); Hyderabad (Banjara Hills,1 year); Delhi (GreenPark,2years)
Chennai (SRM, 3 years).

Cities (<year)

Bangalore (JNCASR, Jakkur), Ahmedabad (born in city, Vastrapur), Vadodara

Summer Schools

NeuroMatch Academy (2020) – Summer School on Computational Neuroscience
- Project on Information loss in engaged brain states.

ChronoSchool (2020) – Society for Research on Biological Rhythms
- Rhythm Analysis from Android Activity data
(for data acquired from myactivity.google.com)

Online Courses

(completed and ongoing)

Computational Neuroscience – University of Washington, Coursera
Google IT Automation with Python (5 part + project) – Google, Coursera
Deep Learning Specialisation (5 part) – deeplearning.ai, Coursera
AWS computer vision: Getting started with GluonCV, Coursera
Computer Science: Algorithms, Theory and Machines, Princeton, Coursera.
Computer Vision Basics – SUNY, UB, Coursera
Introduction to Programming in MATLAB – Vanderbilt Univesity, Coursera
Welcome to Game Theory – University of Tokyo, Coursera
Statistics with R (5 part + Project) – Duke University, Coursera
Experimentation for Improvement – McMaster Univeristy, Coursera
Systems Biology and Biotechnology (5 part + project) – Icahn centre, Coursera
Circadian Rhythms: How Rhythms Structure Life – LMU Munich, Coursera
Visual Perception and the Brain – Duke University, Coursersa
Medical Neuroscience – Duke University, Coursera
Bayesian Statistics: From concept to data analysis, UC Santa cruz, Coursera.
Practical Data Science with MATLAB – Mathworks, Coursera.

Research Interests

- Clock control on cognitive activity
- Redox state as read-outs for membrane excitability
- Masking effects: calcium inactivity vs redox state
- Neural circuits and roles in specific activity
- Fly behavior: movement and environment model
- Survival associated evolutionary origin of neural circuits

Career Interest and Motivation

I am a computer nerd fascinated by the way nature shapes machines that compute with far more complexity, speed and efficiency than has ever been made possible in-silico. In order to study that, I chose to first study Biology (Thence Biotech in my bachelors) and caught up on the computer sciences from all the wonderful resources online. I am working towards a career in the intersection of these two amazing fields, looking for opportunities that let me use my understanding of neuroscience to augment new ways of computing in machines.