

# Siddhant Attavar

CS @ BITS Pilani | Rise Winner '22 | ICPC World Finals '24 | IOL '22 | APIO '22

## About



L 1802 Brigade  
Metropolis,  
Mahadevapura,  
Whitefield, Bengaluru,  
India Bengaluru India  
560048 IND



siddhantattavar12@gmail.com

## Personal website



GitHub: SiddhantAttavar



LinkedIn:  
SiddhantAttavar

Stopstalk (Competitive  
Programming):  
SiddhantAttavar

## Neurotechnology

### Computational modelling

EEG EMG BCI

Signal Processing

## Algorithms

Data structures

Graph Theory

## Machine Learning

Neural networks RNNs

CNNs GANs

## Programming Languages

Python C++ Java

## Computational Biology

Network biology

Computational genomics

## Linguistics

## Summary

I am a sophomore studying Computer Science at Birla Institute of Technology and Science Pilani, Pilani Campus. I am interested in computational biology, neurotechnology, and machine learning. I also have a keen interest in participating in various olympiads, particularly in linguistics and informatics, as well as prestigious competitive programming competitions like ICPC.

## Experience

06/2024 - 10/2024

Research Intern, Indian Institute of Technology Kharagpur

Developed machine learning models in OpenViBE for motor imagery classification in EEG data

- Developed CSP spatial filters to de-noise EEG data
- Created a versatile, modular testing system for benchmarking ML models used for EEG analysis
- Designed LDA, SVM and CNN based ML models for EEG motor activity classification
- Deployed ML models in VR game

02/2024 - Present

Founder Neurotech Lab, BITS Pilani

Led research initiatives in the field of computational neuroscience and neurotechnology

- Using reinforcement learning algorithms for channel reduction in P300 spellers
- Created EMG based digital interface system for gaming
- Conducted workshop for 150+ students about neurotechnology and EEG signal analysis

10/2023 - Present

Undergraduate Researcher, SPARKLE, BITS Pilani

Worked on a histopathology based breast cancer diagnostic platform using machine learning

- Created diagnostic pipeline for benchmarking models
- Made GAN based stain-augmentation model
- Used image deconvolution to create stain-invariance system for histopathological images
- Contributed to tumour classification model that used semi-supervised learning and transfer learning

## Open Source Projects

### SimAID - Simulating and Analyzing Infectious Diseases

<https://siddhantattavar.com/projects/simaid/>

03/2021 - 02/2022

A novel agent-based epidemiological model that allows policymakers to simulate and analyze intervention policies for various pandemics. See more: <https://siddhantattavar.com/projects/simaid/>

### SMART - Stroke Monitoring And Rehabilitation using Technology

<https://siddhantattavar.com/projects/smart/>

04/2020 - 06/2021

A technology based solution aimed at addressing the gaps in stroke rehabilitation services in India using EEG based brainwave analysis and state-of-the-art machine learning techniques. See more: <https://siddhantattavar.com/projects/smart/>

### DriveSafe - A smartphone app to monitor reckless driving behaviors

<https://siddhantattavar.com/projects/drivesafe/>

05/2019 - 02/2020

Computational linguistics  
Morphology Sematics

## Languages

English  
Hindi

## Interests

Competitive Programming

Computational Biology

Machine Learning

Brain Computer Interfaces

Linguistics

A smartphone application which uses inbuilt smartphone sensors to detect reckless driving behaviours in real-time and provide feedback in an effort to improve road safety in India. See more: <https://siddhantattavar.com/projects/drivesafe/>

## Education

### Birla Institute of Technology and Science Pilani, Pilani Campus

08/2023 - 05/2027

B.E. (Hons.) Computer Science; 9.54 CGPA (Grade scale: 2-10)

- Founder, Neurotech Lab
- Student Program for Advancing Research KnowLedge and Entrepreneurship (SPARKLE)
- Vertical Lead, Postman API Lab (Neurotech, Competitive Coding, App Development)
- Coding Club (Competitive Coding)
- Google Developer Student Chapter (Competitive Coding)
- Biology Association
- Inspired Karters Electric
- Society for Theoretical Sciences

### National Public School, Indiranagar

06/2018 - 04/2023

High School Diploma 10th: 93.8%, 12th: 96.6%

- Founder, Linguistics Club
- President, Cyber Association

## Awards

### Inter Collegiate Programming Competition World Finalist 2024

Inter Collegiate Programming Contest

Participated in the ICPC World Finals at Astana, Kazakhstan and secured global rank of 107 as well as an Indian rank of 7. Results:

<https://scoreboard.icpc.global/2024/scoreboard/>

### International Linguistics Olympiad Silver Medallist

International Linguistics Olympiad, Lingomann

Received a silver medal in the International Linguistics Olympiad, 2022 held in Isle of Man, UK. Came 28th out of 200+ participants. Got the highest score from India. Results: <https://ioling.org/results/2022/>

### Asia Pacific Informatics Olympiad Bronze Medallist

Asia Pacific Informatics Olympiad

2nd place amongst Indian contestants in APIO. Results:

<https://www.apio2022.org/ranking>

### Asia Pacific Linguistics Olympiad Silver (2023), Bronze (2019,22) Medallist

Asia Pacific Linguistics Olympiad

Secured an APLO silver medal in 2023 and was the youngest ever APLO medallist from India in 2019. Results: <https://aplo.asia/results/>

### Rise Global Winner

Schmidt Futures, Rhodes Trust

Top 100 students selected to be part of the 2022 Rise Global Winner cohort out of 80,000 applicants. Results: <https://www.risefortheworld.org/global-winners>

### IRIS National Fair 2020,21,22 Finalist

Exstemplar Education Foundation; Department of Science and Technology, India · Jan 2022

Top 100 projects at IRIS National Fair for my projects: 1. SimAID - an agent-based simulation model and decision support tool for pandemics; 2. SMART: Stroke Monitoring and Rehabilitation using Technology.; 3. DriveSafe: A smartphone app to monitor reckless driving behaviours. Results: <https://www.irisnationalfair.org>