

# SUSHRUT THORAT

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## CONTACT INFORMATION

EMAIL: [sushrut.thorat94@gmail.com](mailto:sushrut.thorat94@gmail.com)    WEBPAGE: [sushrutthorat.com](http://sushrutthorat.com)  
GITHUB: [novelmartis](#)    OTHER INFO: [G-Scholar](#), [Full-CV](#)

## GOAL

Understanding and building resource-constrained agents that can learn and function in the wild

## ACADEMIC TRAJECTORY

**Postdoc in Machine Learning** *Ongoing*  
*Institute of Cognitive Science, Osnabrück University, Germany*

**Ph.D. in Cognitive Neuroscience** *November, 2022*  
Donders Centre for Cognition, Radboud University, The Netherlands

**M.Sc. (with honors) in Cognitive Neuroscience** *July, 2017*  
Center for Mind/Brain Sciences (CIMEC), University of Trento, Italy

**B.Tech. in Engineering Physics** *August, 2015*  
Department of Physics, Indian Institute of Technology - Bombay (IIT-B), India

## TECHNICAL PROFICIENCY

**Programming languages:** Python, MATLAB, Javascript  
**Machine learning frameworks:** TensorFlow, PyTorch, MatConvNet  
**Experimentation frameworks:** PsychToolbox, jsPsych, Pavlovía  
**Neuro-imaging:** fMRI (data acquisition and analysis), EEG (data analysis)

## SELECTED PUBLICATIONS

Thorat S\*, Aldegheri G\*, Kietzmann TC (2021). Category-orthogonal object features guide information processing in recurrent neural networks trained for object categorization. *Shared Visual Representations in Human & Machine Intelligence Workshop @ NeurIPS*. \*equal contribution.

Thorat S, Proklova D, Peelen MV (2019). The nature of the animacy organization in human ventral temporal cortex. *eLife* 8: e47142.

Anthes D, Thorat S, König P, Kietzmann TC (2023). Diagnosing catastrophe: Large parts of accuracy loss in continual learning can be accounted for by readout misalignment. *Conference on Cognitive Computational Neuroscience (CCN)*: 748-751.

Thorat S, Peelen MV (2022). Body shape as a visual feature: evidence from spatially-global attentional modulation in human visual cortex. *NeuroImage*: 119207.

Thorat S, Doerig A, Kietzmann TC (2023). Characterising representation dynamics in recurrent neural networks for object recognition. *Conference on Cognitive Computational Neuroscience (CCN)*: 645-647.

## NOTABLE ACHIEVEMENTS

- Voted **best poster/short-pitch**, among **15 posters**, in the 'Perception, Action, and Control' theme at the annual Donders Poster Session (2020)
- Recipient of the **Abstract Award**, awarded to **5 of the 57** accepted abstracts at the Rovereto Workshop on Concepts, Actions and Objects (2017).
- Ranked **721 among 450,000** students in the Joint Entrance Examination (**JEE, 2011**) conducted towards admission to the Indian Institute of Technology (IIT).

## REVIEWING WORK

Nature Human Behavior, Neural Networks, PLOS Computational Biology, Nature Communications, Science Advances, NeurIPS workshops, Memory & Cognition, eLife, CCN

## SUPERVISION

Supervised 9 undergraduate, 3 masters, and 3 PhD students.