

Alessandro Gifford, PhD

Computational Neuroscientist

Berlin, Germany



EDUCATION

- 2020 - 2025 **PhD in Computational Visual Neuroscience (summa cum laude)**
Freie Universität Berlin, Berlin, Germany
Advisor: Radoslaw M. Cichy
Thesis: *In silico neuroscience: an emerging paradigm for brain discovery*
- 2018 - 2019 **MSc Thesis Research Internship**
Freie Universität Berlin, Berlin, Germany
Advisors: Daniel Kaiser, Radoslaw M. Cichy
- 2017 - 2019 **MSc Cognitive Neuroscience (grade: 110/110 with honour)**
CIMeC, Rovereto, Italy
Advisors: Daniel Kaiser, Radoslaw M. Cichy, Scott L. Fairhall
Thesis: *Implicit neural coding of natural scene structure*
- 2016 - 2017 **BA Philosophy Exchange Student**
University of John Paul II, Kraków, Poland
- 2014 - 2017 **BA Philosophy (grade: 110/110 with honour)**
University of Trento, Trento, Italy
Advisors: Carlo Brentari, Paola Giacomoni
Thesis: *Nature, nurture, and reason as determinants of human behavior*

RESEARCH EXPERIENCE

- 2025 - now **Postdoctoral Researcher**
Freie Universität Berlin, Berlin, Germany
Advisor: Radoslaw M. Cichy
- 2024 - 2025 **Organization of the Algonauts Project 2025 Challenge**
University of Montreal, Montreal, Canada
Advisors: Lune Bellec, Radoslaw M. Cichy
- 2022 - 2023 **Organization of the Algonauts Project 2023 Challenge**
University of Minnesota, Minneapolis, MN, USA
Advisors: Kendrick Kay, Radoslaw M. Cichy

2021 **Research Project in Brain Computer Interface Technology**
Charité - Universitätsmedizin Berlin, Berlin, Germany
Advisor: Surjo Soekadar

MEMBERSHIPS & AFFILIATIONS

2021 - 2025 Bernstein Center for Computational Neuroscience, Berlin, Germany
2020 - 2025 Einstein Center for Neurosciences, Berlin, Germany

GRANTS AND FUNDING

2023 National Eye Institute Early Career Scientist Travel Grant (VSS conference)
2020 - 2023 Einstein Center for Neurosciences PhD scholarship

PEER-REVIEWED ARTICLES

2026 **Gifford AT**, Cichy RM, Naselaris T, Kay K. 2026. A 7T fMRI dataset of synthetic images for out-of-distribution modeling of vision. *Nature Communications*.

Sartzetaki C, Zonneveld AW, Oyarzo P, **Gifford AT**, Cichy RM, Mettes P, Groen IIA. 2026. The Human Brain as a Dynamic Mixture of Expert Models in Video Understanding. *International Conference on Learning Representations*.

2025 **Gifford AT**, Jastrzębowska MA, Singer JJD, Cichy RM. 2025. In silico discovery of representational relationships across visual cortex. *Nature Human Behavior*.

Rong B, **Gifford AT**, Düzel E, Cichy RM. 2025. The time course of visuo-semantic representations in the human brain is captured by combining vision and language models. *eLife*.

Guo M, Choksi B, Sadiya S, **Gifford AT**, Vilas MG, Radoslaw Cichy RM, Roig G. 2025. Limited but consistent gains in adversarial robustness by co-training object recognition models with human EEG. *European Conference on Computer Vision*.

2024 Lahner B, Dwivedi K, Iamshchinina P, Graumann M, Lascelles A, Roig G, **Gifford AT**, Pan B, Jin S, Ratan Murty NA, Kay K, Oliva A, Cichy RM. 2024. Modeling short visual events through the BOLD moments video fMRI dataset and metadata. *Nature Communications*.

2022 **Gifford AT**, Dwivedi K, Roig G, Cichy RM. 2022. A large and rich EEG dataset for modeling human visual object recognition. *NeuroImage*.

PREPRINTS

- 2025 **Gifford AT**, Bersch D, Janini D, Roig G, Cichy RM. 2025. Catalyzing in silico neuroscience with a toolkit of accurate encoding models of the brain. *CCN Extended Abstract*.
- Gifford AT**, Bersch D, St-Laurent M, Pinsard B, Boyle J, Bellec L, Oliva A, Roig G, Cichy RM. 2025. The Algonauts Project 2025 Challenge: How the Human Brain Makes Sense of Multimodal Movies. *arXiv preprint*.
- 2023 **Gifford AT**, Lahner B, Saba-Sadiya S, Vilas MG, Lascelles A, Oliva A, Kay K, Roig G, Cichy RM. 2023. The Algonauts Project 2023 Challenge: How the Human Brain Makes Sense of Natural Scenes. *arXiv preprint*.

DATASETS AND RESOURCES

- 2026 **Gifford AT**, Bersch D, Roig G, Cichy RM. 2026. The Brain Encoding Response Generator. [[link](#)]
- Gifford AT**, Cichy RM, Naselaris T, Kay K. 2026. A 7T fMRI dataset of synthetic images for out-of-distribution modeling of vision. [[link](#)]
- 2024 Lahner B, Dwivedi K, Iamshchinina P, Graumann M, Lascelles A, Roig G, **Gifford AT**, Pan B, Jin S, Ratan Murty NA, Kay K, Oliva A, Cichy RM. 2024. Modeling short visual events through the BOLD moments video fMRI dataset and metadata. [[link](#)]
- 2022 **Gifford AT**, Dwivedi K, Roig G, Cichy RM. 2022. A large and rich EEG dataset for modeling human visual object recognition. [[link](#)]

CODE TUTORIALS

- 2025 Univariate relational neural control [[link](#)]
- Multivariate relational neural control [[link](#)]
- The Algonauts Project 2025 challenge development kit [[link](#)]
- The Brain Encoding Response Generator (fMRI tutorial) [[link](#)]
- The Brain Encoding Response Generator (EEG tutorial) [[link](#)]
- 2023 The Algonauts Project 2023 challenge development kit [[link](#)]
- 2022 A large and rich EEG dataset for modeling human visual object recognition (dataset tutorial) [[link](#)]

TALKS & POSTER PRESENTATIONS

- 2026 **Poster**, Computational and Systems Neuroscience (COSYNE) conference, Lisbon, Portugal. March 2026. Title: Catalyzing in silico neuroscience with a toolkit of accurate encoding models of the brain. [[link](#)]
- 2025 **Talk**, Bonner Lab, Johns Hopkins University, Baltimore, MD, USA. November 2025. Title: In silico neuroscience: an emerging paradigm for brain discovery. [[link](#)]
- Talk**, Computational Visual Neuroscience Laboratory, University of Minnesota, Twin Cities, MN, USA. October 2025. Title: In silico neuroscience: an emerging paradigm for brain discovery. [[link](#)]
- Talk**, SISSA, Trieste, Italy. October 2025. Title: In silico neuroscience: an emerging paradigm for brain discovery. [[link](#)]
- Talk**, Kietzmann Lab, University of Osnabrück, Osnabrück, Germany. September 2025. Title: In silico neuroscience: an emerging paradigm for brain discovery. [[link](#)]
- Talk**, Cognitive Computational Neuroscience (CCN) conference, Amsterdam, Netherlands. August 2025. Title: A 7T fMRI dataset of synthetic images for out-of-distribution modeling of vision. [[link](#)]
- Talk**, Cognitive Computational Neuroscience (CCN) conference, Amsterdam, Netherlands. August 2025. Title: The Algonauts Project 2025 Challenge: How the Human Brain Makes Sense of a World in Motion. [[link](#)]
- Poster**, Cognitive Computational Neuroscience (CCN) conference, Amsterdam, Netherlands. August 2025. Title: Catalyzing in silico neuroscience with a toolkit of accurate encoding models of the brain. [[link](#)]
- Poster**, Cognitive Computational Neuroscience (CCN) conference, Amsterdam, Netherlands. August 2025. Title: A 7T fMRI dataset of synthetic images for out-of-distribution modeling of vision. [[link](#)]
- Talk**, Enigma Journal Club, Stanford University, Stanford, CA, USA. March 2025. Title: In silico neuroscience. [[link](#)]
- 2024 **Talk**, Charest Lab, Université de Montréal, Montréal, Canada. November 2024. [[link](#)]
- Talk**, Computational Perception & Cognition Lab, MIT, Boston, MA, USA. October 2024. [[link](#)]
- Talk**, Montreal AI and Neuroscience (MAIN) conference, Montréal, Canada. October 2024. Title: Experimentation on in silico neural responses from encoding models. [[link](#)]

Talk, Freie Universität Berlin, Berlin, Germany. October 2024. Title: Experimentation on in silico neural responses from encoding models. [\[link\]](#)

Talk, Neuro-AI-Talks (NEAT) conference, Osnabrück, Germany. September 2024. Title: Experimentation on in-silico neural responses from encoding models. [\[link\]](#)

Poster, Neuro-AI-Talks (NEAT) conference, Osnabrück, Germany. September 2024. Title: Investigating representational relationships across visual cortex using relational neural control. [\[link\]](#)

Talk, Ponce Lab, Harvard, Boston, MA, USA. August 2024. [\[link\]](#)

Poster, Cognitive Computational Neuroscience (CCN) conference, Boston, MA, USA. August 2024. Title: Relational neural control: a method for investigating functional relationships across the brain. [\[link\]](#)

Talk, Vision Sciences Society (VSS) conference, St. Pete Beach, FL, USA. May 2024. Title: Synthetic large-scale visual neural datasets. [\[link\]](#)

Poster, Vision Sciences Society (VSS) conference, St. Pete Beach, FL, USA. May 2024. Title: Disentangling the unique contribution of human retinotopic regions using neural control. [\[link\]](#)

2023

Poster, Neuro-AI-talks (NEAT), Osnabrück, DE. September 2023. Title: A large and rich EEG dataset for modeling human visual object recognition. [\[link\]](#)

Talk, Cognitive Computational Neuroscience (CCN) conference, Oxford, UK. August 2023. Title: The Algonauts Project 2023 Challenge: How the Human Brain Makes Sense of Natural Scenes. [\[link\]](#)

Talk, Vision Sciences Society (VSS) conference, St. Pete Beach, FL, USA. May 2023. Title: A large and rich EEG dataset for modeling human visual object recognition. [\[link\]](#)

2022

Talk, Perception Lunch, University of Minnesota, Twin Cities, MN, USA. November 2022. Title: Resolving the neural algorithm of visual perception. [\[link\]](#)

Poster, Cognitive Computational Neuroscience (CCN) conference, San Francisco, CA, USA. August 2022. Title: A large and rich EEG dataset for modeling human visual object recognition. [\[link\]](#)

SCIENTIFIC EVENT ORGANIZATION

2025

The Algonauts Project 2025 challenge [\[link\]](#)

2023 The Algonauts Project 2023 challenge [[link](#)]

ACADEMIC PEER REVIEWING

2026 Scientific Reports, CCN Proceedings, Scientific Data

2025 CCN Proceedings; Imaging Neuroscience; Nature Human Behavior; NeurIPS; npj Digital Medicine

2024 Nature Communications

2023 Cerebral Cortex; NeuroImage

2022 NeuroImage

TEACHING EXPERIENCE

2025 Introduction to programming (Freie Universität Berlin)

2025 Advanced fMRI data analysis (Freie Universität Berlin)

MENTORED STUDENTS

2025 - 2026 Ling Cong Kong (PhD project)

2025 - 2026 Jeffrey Katabo (Pre-Doc Internship)

2024 - 2025 Lorenzo Stroppa (MSc Internship)

2024 Andreea-Maria Gui (Pre-Doc Internship)

2023 Todd Hagen (MSc Internship)

2022 Furkan Özkan Hüseyincan (Internship)

2021 Andrei Kitaitsev (MSc Thesis)

ACADEMIC REFERENCES

Radoslaw Martin Cichy, Prof.
Research Group Leader
Freie Universität Berlin
Department of Psychology and Education
Habelschwerdter Allee 45
14195, Berlin, Germany
rmcichy@zedat.fu-berlin.de

Kendrick Kay, Prof.

Research Group Leader

University of Minnesota

Center for Magnetic Resonance Research (CMRR)

2021 6th St SE

55455, Minneapolis, MN, USA

kay@umn.edu