

MATIAS LEANDRO ANDINA



EDUCATION

Current
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2021

2018
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2016

2015
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2010

- **PhD. Student, Neuroscience**
Massachusetts Institute of Technology Massachusetts, USA
- **MSc., Neuroscience**
University of Massachusetts Amherst Massachusetts, USA
- **Biology Degree**
University of Buenos Aires Buenos Aires, ARG



RESEARCH EXPERIENCE

Current
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2022

2021
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2018

2018
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2016

2015
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2013

- **Graduate Research Assistant**
Massachusetts Institute of Technology Massachusetts, USA
 - Designed and built behavioral setup for synchronized behavior and physiology recordings
 - Designed experiments and collected terabyte datasets to study hunger, sleep, and torpor in mice
- **Technical Associate**
Massachusetts Institute of Technology Massachusetts, USA
 - Provided technical support for lab procedures (surgeries, wet lab, colony management)
 - Designed continuous home cage monitoring system for movement, temperature, and food intake
- **Graduate Research Assistant**
University of Massachusetts Amherst Massachusetts, USA
 - Designed experiments and collected data to study maternal behavior in rats
- **Undergraduate Researcher**
University of Buenos Aires Buenos Aires, ARG
 - Tested a novel device to measure escape responses in crabs
 - Designed experiments and collected data to study learning and memory mechanisms



TEACHING EXPERIENCE

2022

2018

- **Teaching Assistant: Statistics for Brain and Computer Sciences**
Massachusetts Institute of Technology Massachusetts, USA
 - Taught statistics recitation lectures.
- **Teaching Assistant: Methods of Inquiry in Psychology**
University of Massachusetts Amherst Massachusetts, USA
 - Taught statistics recitation lectures.



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 NeuroMLA
 github.com/matiasandina
 matiasandina.com
 linkedin.com/in/matiasandina

LANGUAGES

Spanish (native)
English (bilingual)
Portuguese (intermediate)

PROGRAMMING

R
Python
Matlab
git / GitHub

DATA ANALYSIS

Data visualization (ggplot2, seaborn)
Linear models (GLM, GLMM)
Machine Learning (sklearn)
Image Processing (opencv)

LITERATE CODING

Quarto
Rmarkdown
LaTeX

2017

Instructor of Record: Animal Behavior

University of Massachusetts Amherst

📍 Massachusetts, USA

- Selected topics in animal behavior and designed curriculum.
- Taught weekly seminars in animal behavior for 40 students
- CITRL associate



SELECTED PUBLICATIONS

2021

Two spaced training trials induce associative ERK-dependent long term memory in *Neohelice granulata*.

Behavioral Brain Research. 🔗 <https://doi.org/10.1016/j.bbr.2021.113132>

- Ojea Ramos S., Andina M., Romano A., Feld, M

2020

Interleukin-17a restores sociability in several mouse models for neurodevelopmental disorders.

Nature. 🔗 <https://doi.org/10.1038/s41586-019-1843-6>

- Reed M.D., Yim Y.S., (...), Andina M., (...), Huh J.R., Choi G.B.

Complete publication list at [Google Scholar](#).



SELECTED TALKS & INVITED LECTURES

2021

Building a user-driven database of open neuroscience projects

Organisation for Human Brain Mapping

- 🔗 bit.ly/OHBM-21-MLA

2019

Data Visualization

Harvard Philanthropy Advisory Fellowship

📍 Massachusetts, USA

- 🔗 bit.ly/PAF-2019-MLA



CONFERENCES

2019

Interleukin-17a restores sociability in several mouse models for neurodevelopmental disorders.

Society For Neuroscience

- Reed M.D., Yim Y.S., (...), Andina M., (...), Huh J.R., Choi G.B

2018

Long-term memory induced by two training trials in the crab *Neohelice granulata*

Federation of European Neuroscience Societies

- Ojea Ramos S., Andina M., Feld M

2015

Two-trial long-term memory in the crab *Neohelice granulata*

Argentinean Society of Neuroscience Research

- Andina M., Romano A., Feld M

2013

Measuring crab's memory: improving conditioning

Argentinean Society of Neuroscience Research

- Andina M., (...), Romano A., Feld M.

★ AWARDS

- 2024
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2022 ● **Picower Neurological Disorder Research Fund**
Massachusetts Institute of Technology
 - Secured \$75,000 to lead a collaborative research effort
- 2021 ● **Arete Fellowship**
Massachusetts Institute of Technology
 - Participated on weekly seminars in Effective Altruism discussion panel
- 2021 ● **IBRO-LARC**
Talleres Open Source
 - Secured \$5,000 to organize open-hardware workshop in Latin America. <https://tallerneurolatam.netlify.app/>
- 2021 ● **Presidential Fellowship**
Massachusetts Institute of Technology
 - Secured \$43,000 to fund my PhD research
- 2017 ● **College of Natural Sciences Fellowship**
University of Massachusetts Amherst
 - Awarded fellowship to design and teach a first year seminar class
- 2016 ● **Neuroscience and Behavior Program Fellowship**
University of Massachusetts Amherst
 - Secured \$27,000 to fund my MSc research
- 2015 ● **Young ISN Neurochemistry**
University of Buenos Aires
 - Secured travel funding to present my Undergraduate Research at a conference

🤝 MENTORING

- 2025 ● **Jenna Raffael**
Massachusetts Institute of Technology
 - Stereotaxic and abdominal surgery. Basic laboratory techniques in rodents.
- 2022
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2021 ● **Penelope Herrero**
Massachusetts Institute of Technology
 - Open Hardware design and fabrication
- 2021 ● **John Eastman**
Massachusetts Institute of Technology
 - FedWatcher. Open Software & Hardware design and fabrication
- 2018
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2017 ● **Idil Tuncali**
University of Massachusetts Amherst
 - Statistics, R programming, and Analysis of Ultrasonic Vocalizations

2017



- **Nneka Southwell**
University of Massachusetts Amherst
 - Basic laboratory techniques in rodents



SERVICE

2023

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2020



- **Team member**
Open Neuroscience
 - Repository of open-source neuroscience tools
 - <https://open-neuroscience.com/>

2021

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2020



- **Co-founder and team member**
Talleres Open Source
 - Organization of workshops for Open Source tools in Neuroscience.
 - <https://talleresos.netlify.app/>

2018

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2016



- **NSB Seminar Committee**
University of Massachusetts Amherst
 - Organization of invited Faculty weekly talks

2018

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2017



- **NSB Mentoring Committee.**
University of Massachusetts Amherst
 - Organization of first year graduate student activities and mentoring events



SOFTWARE DEVELOPMENT



- **FedWatcher: an open-source python software for real-time serial communication with FED3 devices.**
<https://github.com/matiasandina/FEDWatcher>
- **FLOW: an open-source home cage monitoring system of temperature and movement in rodents.**
https://github.com/matiasandina/homecage_quantification
- **nobrainr: an open-source simple interface to plot plates from the Mouse Allen Brain Atlas using R.**
<https://github.com/matiasandina/nobrainr>

Complete List of Software at [Github](#).

I have a strong commitment towards using and developing open source tools.



SELECTED DATA SCIENCE WRITING

2020



- **Queen's Gambit**
<https://matiasandina.com/posts/2021-02-07-queens-gambit/>

2019



- **Birthday Meritocracy**
<https://matiasandina.com/posts/2019-05-09-birthday-meritocracy/>

I love to visualize data. I post my visualizations and insights in my personal blog[†]