

MATIAS LEANDRO ANDINA



EDUCATION

- Current
|
2021
- **PhD. Student, Neuroscience**
Massachusetts Institute of Technology 📍 Massachusetts, USA
- Current
|
2022
- **Graduate Teaching Certificate**
Massachusetts Institute of Technology 📍 Massachusetts, USA
 - Research-based strategies for lesson, subject, and program design and development
- 2018
|
2016
- **MSc., Neuroscience**
University of Massachusetts Amherst 📍 Massachusetts, USA
- 2015
|
2010
- **Biology Degree**
University of Buenos Aires 📍 Buenos Aires, ARG



RESEARCH EXPERIENCE

- Current
|
2022
- **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 and sleep in mice
- 2021
|
2018
- **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
- 2018
|
2016
- **Graduate Research Assistant**
University of Massachusetts Amherst 📍 Massachusetts, USA
 - Designed experiments and collected data to study maternal behavior in rats
- 2015
|
2013
- **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



✉ matiasandina@gmail.com
🐦 [NeuroMLA](#)
📄 github.com/matiasandina
🌐 matiasandina.netlify.app
in 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





TEACHING EXPERIENCE

- 2022 • **Teaching Assistant: Statistics for Brain and Computer Sciences**
Massachusetts Institute of Technology  Massachusetts, USA
 - Taught statistics recitation lectures.
- 2018 • **Teaching Assistant: Methods of Inquiry in Psychology**
University of Massachusetts Amherst  Massachusetts, USA
 - Taught statistics recitation lectures for 20 students.
- 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
|
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

- 2022
|
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
|
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

Current
|
2020



Team member

Open Neuroscience

- Repository of open-source neuroscience tools
- <https://open-neuroscience.com/>

2021
|
2020



Co-founder and team member

Talleres Open Source

- Organization of workshops for Open Source tools in Neuroscience.
- <https://talleresos.netlify.app/>

2018
|
2016



NSB Seminar Committee

University of Massachusetts Amherst

- Organization of invited Faculty weekly talks

2018
|
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.netlify.app/2021/02/queens-gambit/>

2019



Birthday Meritocracy

<https://matiasandina.netlify.app/2019/05/birthday-meritocracy/>

Last updated on 2022-08-28.

I love to visualize data. I post my visualizations and insights in my personal blog¹