Updated October 21, 2025

Felipe Parodi

Email **GitHub** **Google Scholar**

Education

University of Pennsylvania Philadelphia, PA
Ph.D. in Neuroscience, Computational Neuroscience Initiative Expected 2026
Thesis: *Novel applications of deep learning for primate neuroethology*

University of Miami Coral Gables, FL
B.S. in Neuroscience, B.A. in Economics 2019

Deep Learning & Reinforcement Learning Summer School Toronto, ON, Canada
The Vector Institute 2024

Cajal Training: Quantitative Approaches to Behaviour Lisbon, Portugal
Champalimaud Foundation 2022

Research

University of Pennsylvania, PhD Researcher 2020–Present
Advisors: Konrad P. Kording and Michael L. Platt
Built large-scale, multimodal pipelines combining wireless neural recordings, 3D pose estimation, and deep learning for naturalistic social behavior analysis in primates. Discovered neural signatures of social perception and communication, demonstrating how AI can reveal principles of brain function in complex, real-world settings.

Google, Data Science Research Intern 2024
Co-developed a Python library combining large language models (LLMs) and human annotators for efficient evaluation of generative AI music, which was adopted in production for high-throughput, scalable music evaluation.

Colossal Biosciences, Machine Learning for Conservation Intern 2024
Developed an end-to-end deep learning pipeline for wild elephant detection, individual recognition, and social behavior characterization from aerial drone data, used by and piloted with Save the Elephants.

First Choice Neurology Clinic, Psychometrician 2019–2020
Data Science for Health Team
Developed a ridge regression model achieving 87% accuracy in predicting cognitive dysfunction in Anglo-Saxon and Hispanic adults, enhancing early diagnosis capabilities and informing treatment strategies.

University of Pennsylvania, Summer Research Intern 2017–2018
Wharton Neuroscience Initiative, Human Neuroeconomics
Conducted regression analysis on smartphone usage and delay decisions and designed experiments to investigate explore-exploit trade-offs in decision-making under physiological stress.

Publications

Parodi, F., et al. "PrimateFace: A Machine Learning Resource for Automated Face Analysis in Human and Non-human Primates." (2025) Under review at Nature Methods.

Parodi, F., Kording, K. P., & Platt, M. L. "Primate neuroethology: a new synthesis." Trends in Cognitive Sciences (2025).

Segado, M., **Parodi, F.**, et al. "Grounding Intelligence in Movement." arXiv (2025).

Testard†, C., Tremblay†, S., **Parodi, F.**, et al. "Neural signatures of natural behaviour in socializing macaques." Nature, 628(8007), 381-390 (2024).

Barack†, D., Ludwig†, V., **Parodi, F.**, et al. "Attention Deficits Linked with Proclivity to Explore while Foraging." Proceedings of the Royal Society B (2024).

Parodi, F., et al. "Vision-language Models for Decoding Provider Attention During Neonatal Resuscitation." CVPR Workshop (2024).

Baker, B., Liu, T., Matelsky, J., **Parodi, F.**, et al. "Computational kinematics of dance: distinguishing hip hop genres." Frontiers in Robotics and AI, 11, 1295308. (2024).

Barack, D., **Parodi, F.**, et al. "Information gathering explains decision dynamics during human and monkey reward foraging." bioRxiv (2023): 2023-10.

Matelsky, J.K., **Parodi, F.**, et al. "A large language model-assisted education tool to provide feedback on open-ended responses." arXiv (2023).

† denotes shared authorship.

Open-Source

Awesome Computational Primatology repository

Curated corpus at the intersection of deep learning and non-human primatology (post-AlexNet ~2012). Highlights novel methods/apps; includes select mixed-species datasets. Community contributions welcome to advance open models/data.

PrimateFace

Cross-species primate face benchmark and toolkit for detection, tracking, and analysis; supports benchmarking and reproducible pipelines for comparative neuroethology.

Talks

PrimateFace. Oral Talk, *NeurIPS AI for Animal Comms Workshop*	Dec 2025
PrimateFace. Poster, *NeurIPS BrainBody Foundation Models Workshop*	Dec 2025
PrimateFace. *American Biological Anthropology Conference*	Apr 2024
PrimateFace. *American Physical Society Spring Meeting*	Mar 2024
Quantifying grooming in paired macaques. *Neuroethology Gordon RC*	Aug 2023
PrimateFace. *CVPR CV4Animals Workshop*	Jun 2023
Quantifying grooming in paired macaques. *APS Spring Meeting*	Mar 2023
Neural signatures of macaque social behavior. *SACNAS NDiSTEM Conference*	Oct 2022
Neural signatures of macaque social behavior. *Neurobiology of Cognition GRC*	Jul 2022
Neuroethology of primate grooming. *Cajal Quant. Analyses of Behaviour*	May 2022
Deep learning for primate movement tracking. *Neuromatch Conference 1.0*	Oct 2020

Honors

NeurIPS 2025 Travel Award, BrainBodyFM Workshop	2025
NRSA T32 NIDCD-NIH Training Grant in Audition and Communication	2021-2023
Jameson-Hurvich Travel Award, University of Pennsylvania	2022

	Full Travel Scholarship Award, SACNAS NDiSTEM Conference	2022
	Generation Google Scholarship Recipient - North America	2021
	Honorable Mention, Ford Foundation Predoctoral Fellowship	2021
	William Fontaine Fellow, University of Pennsylvania	2020-2026
	Iron Arrow Honor Society, University of Miami	2018
	Outstanding Poster Presentation Award, ABRCMS	2017
	Scholar, Hispanic Scholarship Fund and The Walt Disney Company	2016, 2018
	President's Scholarship, University of Miami	2015
	Nominations	
	Google PhD Fellowship, University of Pennsylvania	2022
	HHMI Gilliam Fellowship, University of Pennsylvania	2022
	Microsoft PhD Fellowship, University of Pennsylvania	2022
Teaching	**AI for Science Workshop**, University of Chicago	Nov 2024
	Co-hosted workshop for Motor Control trainees	
	Neuroethology (Undergraduate)	Spr 2023
	University of Pennsylvania	
	Statistics for Biologists (UG/Graduate)	Fall 2022
	University of Pennsylvania	
	Deep Learning for Data Science (Graduate)	Spr 2022
	University of Pennsylvania	
	Statistics for Biologists (Undergraduate)	Fall 2021
	University of Pennsylvania	
	Evolution & Biodiversity (PRISM)	Spr 2018
	University of Miami	
	HHMI Evolution & Biodiversity Lab (PRISM)	Spr 2018
	University of Miami	
	General Biology (PRISM Honors)	Fall 2017
	University of Miami	
	HHMI General Biology Lab (PRISM)	Fall 2017
	University of Miami	
Service	Reviewer, *Cosyne* (Conference)	2024-Present
	Reviewer, *Neuron* (Journal)	2024-Present
	Reviewer, *International Journal of Computer Vision*	2024-Present
	IDEAL Research Affiliate, University of Pennsylvania	2023-2024
	Mentor, Project Short	2020-2022
	Computational Co-Chief, Brain in Briefs at UPenn	2020-2021
	Volunteer, Neuromatch Conference	2020-2021
	STEM Tutor, Wise Aces Tutoring Inc,	2018-2020
	President, UMiami SACNAS Chapter	2017-2019
	South FL Regional Coordinator, U.S. DOE National Science Bowl	2018
	Director & Counselor, Camp Kesem UMiami	2015-2018

Skills

Technical Expertise

Deep Learning, Computer Vision, 3D Movement Tracking, Pose Estimation, Action Recognition, Neural Decoding, Statistical Modeling, Signal Processing