AGUSTIN PEREZ SANTANGELO

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Personal website: 2exp3.netlify.app
Code repositories: github.com/2exp3

EDUCATION

Ph. D. in Biology (Neuroscience), University of Buenos Aires, 2016-present day.
University Degree in Molecular Biology and Biotechnology (Licenciatura), University of Buenos Aires, 2006-2013.

RESEARCH INTESTS

Cognitive Neuroscience; Human Behavior; Decision-Making; Evidence-Based Policymaking; Computational Models; Bayesian Inference.

RESEARCH

Ph.D. Candidate, 2016-present day

· Concentrations: Decision-making, Computational Modeling of Cognition and Behavior, Emotions, Physiology.
· Thesis: *"Cognitive effects of context on human decision-making"*.
· Advisors: Mariano Sigman, Ph.D., Maria Juliana Leone, Ph.D.
  Laboratorio de Neurociencia, Torcuato Di Tella University.

Laboratory Technician, 2015-2016

· Concentrations: Molecular Markers, Genetic Profiling, Degraded DNA.
· Research and development project: *"Design of long ssDNA polynucleotides to amplify STRs loci in degraded DNA samples"*.
· Advisors: M.Sc. Martin Mautner.
  Biodynamics S.R.L.

Undergraduate Research Assistant, 2011-2013

· Concentrations: Behavior, Circadian Rhythms, Genetics, Neural Pathways.
· Undergraduate research project: "*Molecular Pathways of Circadian Behavior in D. Melanogaster"*.
· Advisor: Maria Fernanda Ceriani, Ph.D.
  Behavioral Genetics Laboratory, Fundación Instituto Leloir.

PUBLICATIONS

· Perez Santangelo, A.; Ludwig, C.; Navajas, J.; Sigman, M.; Leone, M.J. (2022). *"Background Music Changes the Policy of Human Decision-Making: Evidence from Experimental and Drift-Diffusion Model-Based Approaches on Different Decision Tasks"*. Journal of Experimental psychology. General.
· Perez Santangelo, A., & Solovey, G. (2022). "*Running Online Behavioral Experiments Using R: Implementation of a Response-Time Decision Making Task as an R-Shiny App*". Journal of Cognition, 5(1).

- Hermida, M. J.; Perez Santangelo, A.; Calero, C.I.; Goizueta, C.; Espinosa, M.; Sigman, M. (2021). *"Learning-by-Teaching Approach Improves Dengue Knowledge in Children and Parents".* The American Journal of Tropical Medicine and Hygiene, 105(6), 1536.
- Mautner, M. E.; Santangelo, A. P.; Bielsa, R. M. C.; Sala, A.; Ginart, S.; Corach, D. (2017). *"Using Long ssDNA Polynucleotides to Amplify STRs Loci in Degraded DNA Samples".* PloS ONE 12(11), e0187190
- Beckwith E. J.; Gorostiza, E. A.; Berni, J.; Rezával, C.; Perez-Santangelo, A. et al. (2013) *"Circadian Period Integrates Network Information Through Activation of the BMP Signaling Pathway".* PLoS Biology 11(12): e1001733.

RELEVANT SKILLS

- Programming languages:
  - Proficient in R for data analysis, statistical and cognitive modelling, and web development (static and dynamic content with R-Markdown and R-Shiny, respectively).
  - Extensive programming experience with Python and MatLab for data analysis and cognitive modelling.
  - Competent in HTML, JavaScript, and CSS (including SASS) for web-development
- Project management and development tools:
  - Vast experience with GitHub Projects and Jira.
  - Git for version control.
  - Scrum framework.
- Statistical analysis and modelling:
  - Vast experience with single and multi-level, linear and non-linear models.
  - Knowledge of frequentist and Bayesian statistical frameworks.
- Languages:
  - Spanish (first language).
  - Fluent in English (IELTS Academic overall score: 8).
  - Basic Portuguese and French.
- Other:
  - Advanced knowledge of MS Excel and MS PowerPoint.
  - Extensive experience in audio, image, and video edition software (Cubase, Adobe Illustrator, Adobe Premiere, Sony Vegas, SoundForge, Adobe LightRoom).

EMPLOYMENT HISTORY

R-Shiny developer, 2021-present day, Appsilon LLC.
- Development of production-ready web applications for Fortune 500 companies.

Applied statistics consultant, 2019-present day, Freelance.
- Data analysis for MundoSano, and several collaborations with academics where I apply bespoke statistical methodology to answer specific questions.

Lead laboratory technician, 2008-2016, Molecular Biology Laboratory, Biodynamics S.R.L.
- · In charge of all the steps involved in production, quality assurance, and research and development of new molecular-biology techniques (which crystallized in a published peer-reviewed paper).

TEACHING EXPERIENCE

Professor, 2015-present day, National University of *"Tres de Febrero"*. Course: Chess & Science.
- · I provide an academic overview of chess both as a subject and as an experimental paradigm to answer more general scientific questions.
- · Audience is generally around 30-40 people with widely diverse backgrounds (e.g., chess, scientific, educational) which requires fine-tuning of communication and didactic strategies to assure everyone understands all main concepts but also retain the attention of those who already have prior knowledge.
- · Material and content are generated and updated frequently, with weekly evaluations to consolidate new concepts and grading through a final evaluation.

Teacher, 2016-2017, *"Santa Teresita del Niño Jesus"* High School, Course: Science.
- · I taught in English to first-year high-school students about physical, chemical and biological processes both in the classroom and in the lab.

GRANTS AND PRIZES
- · Runner-up, Shiny-app contest, 2021.
- · Fee waiver, Neuromatch Academy, 2020.
- · International Travel Grant, International Brain Research Organization (IBRO), 2019.
- · Fee waiver and travel grant, HelloBio - European Neuroscience Conference for Doctoral Students (ENCODS), 2019.
- · Doctoral Scholarship, National Scientific and Technical Research Council, 2016.
- · *Sarmiento* Scholarship for undergraduate students, University of Buenos Aires, 2007.

CERTIFICATIONS
- · *"Neuromatch Academy interactive track and project completion",* Neuromatch 2020 (online summer-school).
- · *"Protecting Human Research Participants",* Certification Number 2935136, NIH (online course).

RELEVANT COMPLETED COURSES
- · Decision-Making: Cognitive and statistical modelling with R. Faculty of Exact and Natural Sciences (FCEN), University of Buenos Aires (UBA), 2020.
- · Statistical Rethinking: A Bayesian Course. Virtual, 2020
- · Neuromatch Academy: modelling neuroscience phenomena with Python. Virtual, 2020.
- · Econometrics. FCEN, UBA, 2019.
- · Network Science. FCEN, UBA, 2019.
- · Applied Statistics: General and Generalized Linear Mixed Models. FCEN, UBA, 2018.
- · Data Science with R: Statistical Bases. FCEN, UBA, 2017.