Santiago G. Rios | Resume

- **Current Status:** Pursuing a Master's degree in Neurobiology and Behavior at the National Autonomous University of Mexico (UNAM)
- **Work:** Statistics teacher using R on my e-learning platform orcaasesina.com, developed with Moodle
- **Skills:** R, Bash, Python, Docker, LaTeX
- **Languages:** English (C2), Spanish (Native)

Experience

2022 - Present — Development of Data Science Techniques — Master's Program at UNAM

- Video tracking of behavior and development of apps for analysis using serverless R
- Implementation of statistical tools to analyze cognitive deficits in mice using R

2022-Present — Applying the Euler Characteristic Transform to protein structures — Michigan State University

- Understanding and Applying the ECT to Measure the Shape of protein structures
- Publication in progress

2017 - 2020 — Research Program Participant — Faculty of Medicine, UNAM, Mexico City

- Studied brain injury and behavioral effects
- Presented results at the Neuroscience 2019 international meeting in Chicago, Illinois

2015 — Short Research Stay — Neurobiology Institute, UNAM

- Participated in the Younglings to Research program
- Studied cognitive behavior analysis using optogenetic techniques

2014 — Short Research Stay — Cell Physiology Institute, UNAM, Mexico City

- Participated in the Younglings to Research program
- Studied techniques and methods to analyze G-coupled proteins

Education

2022 - 2024 — Master of Science in Neurobiology and Behavior — UNAM, Mexico City

- Thesis: Characterization of fluoxetine effects on behavior and spatial learning in a mouse model of mild stress
- Developed and implemented new methods to assess depressive-like behavior and cognition using R via WebAssembly in serverless computing

2019 - 2022 — Bachelor of Science in Biology — UNAM, Mexico City

- Thesis: Effects of transcranial magnetic stimulation on the expression of cannabinoid receptors in a rat model of brain injury
- Implemented laboratory techniques in immunology, genetics, and behavior