Camila Blank

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 in camila-blank

Education

Stanford University

BS in Mathematics and Computer Science

- o GPA: 3.9/4.0
- Coursework: Groups and Rings, Differential Geometry, Finite Fields with Applications in Combinatorics, Proof-Based Probability Theory, Linear Algebra and Multivariable Calculus, Programming Abstractions, Programming Methodology, Data Narratives

The Archer School for Girls

- o GPA: 4.61/4.0
- AP Exams: AP Calculus AB (5), AP Calculus BC (5)
- o Activities: Concertmaster of Archer Orchestra, President of Asian Pacific-Islander Student Union

Experience

Machine Learning and Computational Neuroscience Researcher

Stanford, CA

 $The\ Linderman\ Lab\ at\ Stanford\ University$

Summer 2025

- Designing and building reinforcement learning model of animal navigation, using intrinsic reward parameterization, Bayesian inference, and an evolving world model
- Furthering understanding of neural mechanisms underlying learning, perception, and decision-making in complex environments
- Awarded the SURP-Stats fellowship, mentored by Professor Scott Linderman

Problem Writer

Stanford, CA

Stanford Math Tournament

Sep 2024 - Present

- Conceptualizing and designing math problems for one of the largest university-run math contests globally
- Specializing in applying concepts from combinatorics and number theory

Neuroscience Researcher

Stanford, CA

The Gibson Lab at Stanford University School of Medicine

Jan 2025 - Jun 2025

- Used linear discriminant analysis and a hidden Markov model to analyze electroencephalogram (EEG) sleep recording data
- Performed Polymerase Chain Reaction (PCR) to genotype DNA samples and identify differences in myelination and oligodendroglial dynamics
- Project investigated the role of myelination and circadian rhythms in Alzheimer's Disease

Composer Fellow

Los Angeles, CA

Los Angeles Philharmonic

Oct 2023 - Jun 2024

- Composed 3 original works performed and recorded by the LA Phil, LA Master Chorale, and other ensembles
- Collaborated with world-renowned composers across several stages of project
- Guided professional musicians in frequent rehearsal sessions to refine project execution

Skills

Languages: Spanish (Native or bilingual proficiency), Mandarin Chinese (Professional working proficiency)

Technical: Python (Pytorch, Gymnasium, NumPy, Pandas, Matplotlib), C++, R, LaTeX, Wolfram Mathematica, Somnotate, data visualization

Laboratory skills: Immunohistochemistry, electroencephalogram (EEG) sleep analysis