Julianna Lamm

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EDUCATION

Fordham University | *M.S Computer Science* | GPA 3.9 May 2025
University of California, **Berkeley** | *B.A Molecular and Cell Biology* May 2020
Skills: Python, JavaScript, C++, React, Next.js, PHP, OpenCV, Pytorch, Scikit-learn, Tableau, SQL

RELEVANT WORK EXPERIENCE

Zhou Lab, Fordham University, NY Aug 2023 - May 2025
Graduate Student Researcher

- Lead development of machine learning toolkits to reconstruct and analyze brain circuitry from high-resolution biological datasets, contributing to the expansion of interactive neuroscience platforms
- Applied structured, iterative experimentation to assess and refine image processing algorithms, with a focus on maintainability and integration into existing research software frameworks.

Dewpoint Therapeutics, Boston, MA Jan 2022 - March 2023
Data Science Research Associate II ,

- Played a key role in shaping internal ML strategies by bridging cross-functional insights between wet lab biology and computational modeling.
- Collaborated closely with data engineers and scientists to design, test, and deploy production-ready machine learning pipelines for object detection across large-scale microscopy datasets.
- Developed and maintained automated image analysis systems with integrated statistical validation to extract meaningful patterns from biological images, informing both experimental design and lab protocol optimization.

Research Associate, Chemical Biology May 2021 - Jan 2022

- Direct report to chemical biology team lead tasked with establishing target deconvolution platform that utilizes novel click chemistry techniques to identify and validate molecular targets
- Assist in development of high-throughput semi-automated IF-based platform to monitor bio-condensate response across all cell types and stimuli with capabilities to screen for hundreds of compounds at a time
- Lead and manage operational efforts to establish partnerships with suppliers and CROs for the development of custom antibody repository

Ohana Biosciences, Cambridge, MA June 2020 - April 2021
Research Associate

- Integral member of four-person team tasked with the identification, categorization, and standardization of unique sperm cell biological characteristics
- Conducted sperm DNA fragmentation and surface characterization assays for the scalable and quick identification of sperm fertility using cell surface biomarkers
- Collaborated with business and marketing team to identify relevant technologies and R&D competitive opportunities pertaining to male fertility

Lishko Lab, UC Berkeley, CA Sept. 2019 - June 2020
Research Assistant

- Independently developed and scripted an open-source, python-based Computer Assisted Sperm Analysis (CASA) that extracts sperm motility, count, hyperactivation, and progressivity using brightfield videos of sperm under standard microscope for senior thesis
- Aided graduate student in completion of PhD thesis, grant proposal writing, and lab meeting presentations
- Performed routine sperm motility analysis, sperm cytometric assays, qPCR, and mammalian cell culture

Amyris, Emeryville, CA June 2019 - Feb. 2020
New Product Development Intern

- Gather, compile, and disseminate information on current legal limits and emerging controversy relevant to chemicals used in personal care and cosmetic industry
- Developed consumer driven and scientifically backed skin-care products using innovative and sustainable material science techniques
- Conceptualized an innovative brand rooted in technical literature and consumer demand

PUBLICATIONS

Will M. Skinner, Natalie T. Peterson, Bret Unger, Shaogeng Tang, Emiliano Tabarsi, **Julianna Lamm**, et. al., (2023). Mitochondrial uncouplers impair human sperm motility without altering ATP content*, Biology of Reproduction,* Volume 109, Issue 2, August 2023, Pages 192-203, https://doi.org/10.1093/biolre/ioad064.