KENNEDY SPANN

https://www.linkedin.com/in/kennedy-s-ucsd/

Carlsbad, CA (760) 688-9065 kespann@rady.ucsd.edu

EDUCATION

***Master of Science in Business Analytics*,** Rady School of Management 12/2025
University of California, San Diego, CA

Bachelor of Science, Animal Biology 03/2023
University of California, Davis, CA

- UC Davis Prized Writing Recipient (2022)

EXPERIENCE

UCSD Health - Bode Lab

Staff Research Associate II 04/2023 - Present

- Manage and oversee laboratory operations, train volunteers, and implement EH&S-compliant workflows to enhance research efficiency.
- Developed expertise in human milk oligosaccharide (HMO) analysis, isolation, and characterization using High-Performance Liquid Chromatography (HPLC) and Fast-Protein Liquid Chromatography (FPLC).
- Led a randomized controlled neurodegenerative disease study using an EAE mouse model, systematically troubleshooting to optimize methodology and reproducibility.
- Optimized LPS-removal protocol, reducing processing time by 60%, with a 75% increase in HMO retention rates.
- Developed advanced data visualizations in R Studio, using packages such as ggplot2 and Shiny.
- Expertise in critically evaluating study designs, ensuring scientific rigor, and transforming research questions into well-defined hypotheses and analytical frameworks.
- Skilled in collaborating with diverse interdisciplinary teams to drive impactful research.

Human Milk Institute (HMI), UCSD

Research Data Strategist & Project Lead, Volunteer 09/2024 - Present

- Co-leading the development of the first global human milk data hub, integrating metadata from diverse human cohort studies to enable comprehensive analysis of the mother-breast milk-infant triad.
- Developing a sustainable business model for global data hub adoption, integrating legal compliance, data-sharing agreements, and financial strategies to ensure long-term viability and accessibility.
- Developed preliminary Python-based computational methods for large-scale data standardization, cleaning, and integration, identifying potential issues to ensure future interoperability.
- Collaborating with the Milk Analytical Core, interdisciplinary teams, and HMI's advisory board to refine research objectives using a backward market research approach, ensuring data utility aligns with scientific, clinical, and industry needs for promoting maternal-infant health.

UC Davis Equine Infectious Disease Research Center

Research Associate 11/2021 - 03/2023

- Conducted an independent research project on equine herpesvirus-1 (EHV-1) vaccine antibody response, analyzing high-dimensional data and collaborating with veterinarians, resulting in publication in a leading veterinary journal.

ADDITIONAL PROJECTS

UCSD, Rady School of Management

Project lead, Experiments in Firms 01/2025 - Present

- Designed and implemented a pilot study using survey instruments to assess qualitative responses, applying A/B testing and randomized experimental design.
- Leveraged consumer behavior analytics to inform data-driven business decisions and improve optimized strategies.
- Utilized Python to analyze underlying explanatory variables influencing outcomes, employing logistic regression, ANOVA, and factor analysis to identify significant predictors and statistical models for a poster presentation, effectively communicating findings to both technical and non-technical audiences.

UCSD, Rady School of Management

Project lead, Neonatal Risk Prediction & Machine Learning 09/2024 - 01/2025

- Performed multivariate regression and machine learning classification on data from three large maternal-infant cohorts from UCSD Health to develop predictive models for adverse birth outcomes.
- Built logistic regression and random forest models, achieving 99% accuracy in predicting neonatal risk factors.
- Developed an interactive Shiny dashboard for real-time risk factor analysis, integrating ggplot2 for time-series visualizations. Presented findings via interactive data demonstrations to both technical and non-technical audiences.

SPECIALIZED SKILLS

- **Technical Skills**: Python, R, A/B Testing, Machine Learning Models (Logistic Regression, Random Forest, Factor Analysis)
- **Data Science & Visualization**: ggplot2, Shiny, Excel (Advanced), PowerPoint, Google Analytics, Oracle
- **Research & Project Management**: Scientific Communication (Technical & Non-Technical), Experimental Design, Relationship Building

PRESENTATIONS

- "Leveraging Generative AI in Healthcare: Effectively Using This 'Skill-Multiplier'"
  Presented at Bode Lab, February 2025

PUBLICATIONS

- **Spann, K.,** Barnum, S., Puterla, N. *Investigation of the Systemic Antibody Response and Antigen Detection Following Intranasal Administration of Two Commercial Equine Herpesvirus-1 Vaccines to Adult Horses.*
- **Spann, K.** *(2022). Efficacy and Safety of MDMA-Assisted Psychotherapy. University of California, Davis Prized Writing 2021-2022, 195-208.*
- Lawton, K., Keller, S.M., Barnum, S., Arrendono-Lopez, C., **Spann, K**., et al. *Seroprevalence of SARS-CoV-2 in 1186 Equids Presented to a Veterinary Medical Teaching Hospital in California from 2020 to 2022.*
- Kreutzfeldt, N., Chambers, T., Reedy, S., **Spann, K.**, Pusterla, N. *Effect of Dexamethasone on Antibody Response of Horses to Vaccination with a Combined Equine Influenza Virus and Equine Herpesvirus-1 Vaccine.*