Tabitha K. Peter

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Experience

U.S. Department of State — Medellín, Colombia
Fulbright Research Scholar — 09/2024 - 04/2025

- Directed a cross-institutional research project as Principal Investigator, fostering international collaboration between stakeholders in Colombia and the United States.
- Demonstrated leadership in managing complex technical projects, influencing project scope, and elevating the quality of team deliverables.
- Collected, stored, analyzed, transcribed, and translated qualitative data in Spanish, demonstrating proficiency in data management, analysis, and linguistic skills.
- Managed comprehensive project documentation, including IRB protocols, Data Storage Policy, and Data Use Agreement, ensuring compliance with ethical standards and institutional policies.
- Built and maintained a professional network with key institutions, enhancing research capabilities and international partnerships.
- **Key Achievement:** Successfully managed $20,000 of institutional funding and achieved research goal of collecting data from 20 interviews. Created a digital pamphlet to make information about the genetic factors of oral clefts accessible to families in Spanish-speaking populations. Presented results at the 2025 International Congress on Human Genetics.

U. Iowa College of Dentistry — Iowa City, Iowa
Senior Biostatistics Consultant — 08/2021 - 08/2024

- Led the planning and execution of multiple parallel data science initiatives, collaborating closely with diverse stakeholders (clinicians, administrators, analysts) to define data needs, provide actionable insights, and drive project completion.
- Developed and implemented an open-source R/C++ package for analyzing complex genetic datasets, significantly improving scalability and reproducibility of research findings.
- Mentored and supported junior consultants in statistical programming, project organization/documentation, and professional communication skills; authored a handbook for onboarding.
- **Key Achievements:** Identified a methodologically sound implementation of cross-validation for correlated high-dimensional data (Peter and Breheny, 2025). Identified shared genetic risk for major orofacial cleft phenotypes in an African population (Alade et al., 2025). Assessed changes in the diversity and composition of oral and oropharyngeal microbiome associated with COVID-19 infection (Ganesan et al. 2023)).

U. Iowa Carver College of Medicine — Iowa City, IA
Biostatistics Consultant — 06/2021 - 09/2023

- Designed and executed a comprehensive data analysis plan, validating outcomes from a large survey dataset collected from medical students during the COVID-19 pandemic.
- **Key Achievement:** Analyzed 142 policy documents from 884 students over a five-year period (2017-2021), revealing a significant shift in student expectations regarding safety exceptions and institutional responsibility during the pandemic, informing policy discussions. (Kaldjian et al., 2024)

U. Iowa College of Dentistry — Iowa City, IA
Biostatistics Consultant — 08/2019 - 08/2021

- Coordinated with clinical researchers and IT specialists to extract and analyze electronic health records (EHR), validating key outcomes and supporting evidence-based clinical practice.
- Facilitated cross-cultural collaboration by organizing and leading meetings, resolving scientific issues, and ensuring successful project completion and publication.
- Created detailed protocols and sample size calculations, enabling clinicians to conduct research with confidence and precision.
- **Key Achievements:** Analyzed time-to-event data to identify dental repair materials 1.5-2 times more likely to require re-intervention (Jain et al. 2019). Synthesized evidence concerning the association between dental anomalies and orofacial clefts (Marzouk et al. 2020)

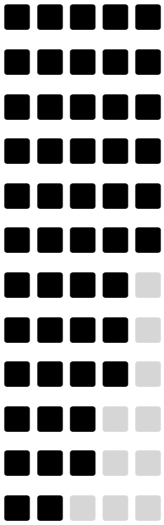
U. Iowa Department of Biostatistics — Iowa City, IA
Biostatistics Research Intern — 06/2018-07/2018

- Applied advanced machine learning methods to analyze lung cancer screening image data from 200 patients.
- **Key Achievement:** Achieved a 12% relative reduction in the false-positive rate for tumor classification compared to the National Lung Screening Trial by implementing Elastic Net and Support Vector Machines, demonstrating strong predictive power with a 0.72 AUC (Delzell et al., 2019).

Technical Skills

Skill level indicated at the right

R programming and package development
Version control for software development (Git/GitHub)
Statistical methods and predictive modeling
Writing technical reports (LaTeX, RMarkdown)
Data visualization (e.g., ggplot2)
Cleaning, preparing, & documenting healthcare data
Command line/scripting (bash, Linux/Unix)
C++ programming
Building data analysis pipelines
Understanding & implementation of machine learning
Containerization (Podman)
SAS programming



Interpersonal skills

- Professional writing
- Interdisciplinary collaboration in health science research teams
- Communication – facilitating collaboration, planning and directing meetings, giving presentations
- Attention to detail
- Commitment to integrity
- Spanish language - professional level (writing, listening, and giving presentations)

Education

University of Iowa — Iowa City, IA
Ph.D., Biostatistics — 08/2021 - 05/2025

University of Iowa — Iowa City, IA
M.S., Biostatistics — 08/2019 - 05/2021

Wheaton Collge, IL — Wheaton, IL
B.S., Mathematics — 08/2015 - 05/2019