

Career Summary

Public health researcher and data scientist with expertise in epidemiological study design, biostatistics, and large-scale healthcare data analysis. Skilled in SQL, Python, and R for multi-center cohort studies, predictive modeling, and EHR analysis across the UC Health system using the OMOP Common Data Model. 3 peer-reviewed publications, 20+ scientific presentations, and research spanning cancer epidemiology, infectious disease, and health disparities.

Technical Skills

**Programming & Analytics:** Python, R, SQL, Java, C, Swift, Bash, Git/GitHub  
**Data Science & ML:** Pandas, NumPy, Scikit-learn, TensorFlow, PySpark, NLP, Predictive Modeling  
**Healthcare Data:** OMOP CDM, Epic SlicerDicer, All of Us, Databricks, UC Health Data Warehouse  
**Biostatistics:** Survival Analysis, Regression Modeling, Causal Inference, Charlson Comorbidity Index  
**Cloud & Databases:** AWS, PostgreSQL, MongoDB, GCP BigQuery

Experience

- Graduate Research Assistant – UC Health Data Warehouse

Sept 2024 – Present

UC San Diego Health – La Jolla, CA

  - Conduct large-scale epidemiological research using OMOP CDM across multi-institutional UC Health datasets with 15M+ patient records
  - Designed multi-center cohort study on psychiatric diagnoses post-cancer diagnosis, analyzing insurance disparities with Charlson Comorbidity Index adjustment
  - Built SQL pipelines and Python analysis workflows in Databricks for clinical data extraction, transformation, and statistical modeling
- Otolaryngology Research Assistant – Qian Lab, UCSD School of Medicine

Feb 2025 – Present

UC San Diego Health – La Jolla, CA

  - Published research on clinical trial publication rates in otolaryngology (Otolaryngology–HNS); led systematic reviews and meta-analyses
  - Analyzed 43,000+ patient records for Bell’s palsy and facial nerve disorder outcomes across multiple etiologies
- Graduate Research Assistant – CHEER Lab, Moores Cancer Center

Sept 2024 – Present

UC San Diego – La Jolla, CA

  - Authored paper on sociodemographic disparities in prostate cancer screening using All of Us; identified predictors including ADI and healthcare discrimination
  - Conducted wastewater-based epidemiology research integrating CDC’s Environmental Justice Index for cancer-related pathogen surveillance
- Undergraduate Research Assistant – Raphael Lab, UCSF

Jan 2023 – Present

UCSF Epidemiology & Biostatistics – San Francisco, CA

  - Built ML model to predict ED treatment discordance for antimicrobial-resistant UTI patients using demographics and clinical features
  - Identified pandemic sequence types of AMR E. coli through culturing, DNA extraction, PCR, and gel electrophoresis

Education

- MPH, Infectious Disease Epidemiology – UC San Diego

Expected June 2026

Herbert Wertheim School of Public Health and Human Longevity Science
- B.A., Molecular and Cell Biology – Neurobiology – UC Berkeley

May 2024

College of Letters and Science
- B.A., Data Science – Neurotechnology – UC Berkeley

May 2024

College of Computing, Data Science, and Society

Select Publications & Presentations

- Rajan SM, et al. Incidence and Timing of New-Onset Depression and Anxiety Following Cancer Diagnosis. Submitted to Cancer (ACS), 2026
- Oca M, et al. Publication Rates of Otitis Media Trials. Otolaryngology–HNS. DOI: 10.1002/ohn.1366
- 20+ presentations at AACR, ASPN, ASPO, SHM Converge, SENTAC, and university research symposia