

RUPSHIKHA SEN

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Dual-background master's student with 4 years of experience in combining clinical and commercial healthcare expertise. I love working on projects with cross-functional collaborative efforts enabling me to broaden implementation of my scientific skills.

EDUCATION

Johns Hopkins Bloomberg School of Public Health (GPA 3.7) Baltimore, MD

Master of Science, Epidemiology

Expected May 2024

Key Coursework: Epidemiology, Biostatistics, Drug Development, Clinical Trials Management, U.S. Healthcare System, Health Economics

Honors: Master's Tuition Scholarship, Center Scholar (Center for Drug Effectiveness Research), Doctoral grade in Comprehensive Exams

Rajiv Gandhi University of Health Sciences (GPA 3.8) Karnataka, India

Bachelor of Dental Surgery

November 2019

Honors: Best outgoing student - All-rounder, University top 10 – Pharmacology & Oral and Maxillofacial Surgery

SKILLS

Software: RStudio, Python, STATA, GitHub, Microsoft Office Suite & Teams, Google suite

Skills (Business & leadership): Project and Clinical management, Business strategy, FDA regulatory laws

Skills (Research and Epidemiology): Clinical trial protocols, Multivariate Regression modeling, Propensity Score Methods, Causal Inference, Data analysis, Data Visualization, Registry design, Observational Real World Data analysis, Literature review

EXPERIENCE

BLOOMBERG SCHOOL OF PUBLIC HEALTH, JOHNS HOPKINS UNIVERSITY

Teaching Assistant

Baltimore, MD

• Introduction to R (Department of Biostatistics)

Jun 2023

• Epidemiological Inference I (Department of Epidemiology)

Sep 2023-Oct 2023

JOHNS HOPKINS GRADUATE CONSULTING CLUB

Baltimore, MD

Consultant

Feb 2023-Apr 2023

• Developed reimbursement pathways for METABOLON, INC. to propel integrated metabolomic diagnostic technologies

• Evaluated FDA approval pathways such as 510k, expedited and LDT pathways to support effective market launch plan

• Identified key therapeutic areas and strategized feasible timeline to collect economic benefit data for reimbursement

DEPARTMENT OF EPIDEMIOLOGY, JOHNS HOPKINS UNIVERSITY

Baltimore, MD

Research Associate

Dec 2022-Present

• Designed and implemented retrospective cohort study methods to use collated data for longitudinal analysis

• Analyzed real-world EHR data in RStudio for a target population of 1.2 million+ HIV infected individuals for long COVID

• Study design planning including appropriate use of epidemiological & regression methods for time-varying and fixed analysis

INSTITUTE FOR GLOBAL TOBACCO CONTROL

Baltimore, MD

Research Associate

Dec 2022-Mar 2023

• Synthesized evidence for tobacco consumption patterns and perceptions for economic policy decisions in LMICs

• Research project planning via development of IRB documents, focused group discussion guide, and sampling protocols

INDEGENE LTD.

Bengaluru, India

Drug Safety Physician (Pfizer BNT162b2 vaccine)

Apr 2021-Aug 2022

• Optimized drug report safety systems (Oracle ARGUS software) facilitating 3-fold increase in safety data turnover rate

• Evaluated adverse event reports to provide causality assessment for drug safety signal studies including serious events

• Collaborated with international stakeholders to ensure rigorous scientific data and adherence to regulatory authority guidelines (FDA, MHRA-UK, EMA and PMDA).

Associate Dentist

Mar 2020-Mar 2021

- Diagnosed oral pathoses and executed surgical procedures, cavity filling, root canal treatment, and prosthesis fabrication
- Managed day to day operation of the clinic, clinic inventory, patient billing and record maintenance

RAJIV GANDHI UNIVERSITY OF HEALTH SCIENCES

Bengaluru, India

House Surgeon

Aug 2018-Nov 2019

- Rotated in 8 specialties of dentistry, examining, diagnosing, and treating maxillofacial pathologies & traumas
- Devised comprehensive treatment plans for 150+ patients including oral cancer cases and specialty cases
- Oversaw department cases and conducted trainings for undergraduates in anesthesia, radiology, orthodontics and RCT
- Served as a primary dentist at 3 public health centers and organized rural public outreach programs funded by GOI.

CERTIFICATES

JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH

Baltimore, MD

I. Pharmacoepidemiology and Drug Safety

May 2023

II. Clinical trials

May 2023

III. Public Health Economics

Expected May 2024

PROJECTS

JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH

Baltimore, MD

Graduate Student*RStudio*

- Conducted data analysis and wrangling to clean raw data available on the best chocolate bars in the market
- Explored and analyzed temperature and rainfall patterns in Australia using RStudio packages (eg: tidyverse, dplyr and ggplot)
- Implemented sentiment analysis of lyrics from popular songs to gain insights into market trends

Python

- Analyzed high density brain volume data in python and utilized different visualizations for quick insights into data
- Created dash apps for body mass index calculation and for map that displays the location with latitude and longitude entry
- Coded for an interactive scatter plot of average number of opioid pills by year plot using plotly
- Created bar plots and line plots for healthcare spending versus time color coded by states

Clinical Trial Protocol

- Designed a clinical trial protocol for HIV-infected persons to determine differences in outcome between patients receiving Remdesivir with Standard of Care vs Placebo with Standard of Care

Registry Design for vaccine

- Created a registry design for a newly released vaccine focusing on population, recruitment, data you will collect, and the registry can be used to inform the regulation of the vaccine by the FDA

FDA submission for vaccine

- Formulated a phase 3 study design for FDA submission for a therapeutic COVID-19 vaccine with proposed methodology emphasizing primary and secondary efficacy, effectiveness, safety end points & potential limitations

CONFERENCES**National Oral Medicine and Radiology Conference****Sep 2016**

- Awarded first prize for essay on "Role of dentists in detection and elimination of oral cancer"
- Secured second prize for paper review presentation on "Human papillomavirus (HPV 6, 11, 16 and 18) vaccines"

National Oral Medicine and Radiology Conference**Apr 2017**

- Bagged first prize for paper review presentation on "Paranasal sinuses and CBCT"

Coorg Dental College Conference**Feb 2018**

- Presented original research conducted on the effectiveness of the use of colored lab coats to eliminate white coat fear in two age cohorts of pediatric patients visiting the dental hospital

PROFICIENCIES

Leadership: Masters Student Representative (2023)(Epidemiology Student Organization), Director of Finance (2023) (One Health Student Group), President (2023) & General Secretary (2022) (Oral Health Leadership Network)

Licenses: Dental Council of India, Basic Life Support (American Heart Association), HIPAA compliance, ICH-GCP

Memberships: JH Graduate Consulting Club, Student chapter for International Society of Pharmacoepidemiology