

# Amrutha Banda

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## EDUCATION

### Columbia University, Mailman School of Public Health

Aug 2025- May 2027

*Master of Science in Biostatistics/ Data Science*

- Relevant Coursework: Data Science 1, Advanced Probability, Biostatistical Methods, Epidemiology

### The College of New Jersey, School of Nursing and Health Sciences

Aug 2021- May 2025

*Bachelor of Science in Public Health, Chemistry Minor – Magna Cum Laude*

GPA: 3.82/4.00

- Relevant Coursework: Statistical Inference & Probability, Health Economics, Intermediate Epidemiology, Biostatistics for Public Health, Health Systems and Policy, Analytical Chemistry, Thermodynamic Chemistry, Biochemistry

## PROFESSIONAL EXPERIENCE

### Clinical Nutrition Intern, NYU Langone

July 2025- Aug 2025

*New York City, NY*

- Interpreted EHR and lab data with dietitians to develop evidence-based nutrition plans for post-operation patients.
- Evaluated patient feedback and dietary metrics to optimize menu design and improve satisfaction outcomes.

### Research Assistant, TCNJ Dept. of Public Health (Dementia Project)

Jan 2025- Aug 2025

*Ewing, NJ*

- Designed and deployed Qualtrics surveys, overseeing data collection, and maintaining IRB for a NJDOH-funded project evaluating caregiver training programs.
- Extracted, cleaned, and analyzed data using SPSS, R, and Excel; conducted statistical tests (t-tests, ANOVA, regression) to generate insights for state-level policy reports in collaboration with faculty investigators.

### Research Assistant, TCNJ Dept. of Public Health (Legionella Project)

Feb 2023- May 2025

*Ewing, NJ*

- Conducted data mining, statistical analysis, and PCR of water quality results for a \$2.1 million U.S EPA-funded R&D initiative on Legionella detection and prevention.
- Built and maintained structured Excel and R datasets, performing exploratory data analysis (EDA), trend modeling, and visualizations to guide environmental health policy and inform infection-control.

### Epidemiology Project, TCNJ

Aug 2024- Dec 2024

*Ewing, NJ*

- Analyzed maternal mortality and abortion access data (2018-2022) in R and SPSS using t-tests, ANOVA, and regression models.
- Applied data mining and multivariate analysis; visualized results and presented findings as a policy report.

### Business Innovation & GPD Intern, Pfizer

June 2023- Aug 2023

*Peapack, NJ*

- Supported Regulatory Intelligence and Submission Systems (RISS) as teams prepared for FDA and EMA drug approvals; Developed 3 technical guides for internal tools used in FDA regulatory meetings.
- Audited and migrated scientific protocols from a legacy system (E-Workbook) to a new platform, improving data accessibility for Digital and R&D teams.
- Collaborated with regulatory affairs and data teams to document a mock Discovery Protocol in GEPR, enhancing understanding of FDA regulatory pathways.
- Gained hands-on exposure to SQL for querying internal databases.

### Research Assistant, Drexel University (WELL Center)

Oct 2022- Feb 2023

*Philadelphia, PA*

- Designed REDCap surveys, cleaned datasets, and supported early analysis for behavioral health outcomes related to eating patterns.
- Authored study protocols and monitored real-time participant data in a hybrid research setting.

## TECHNICAL SKILLS

- **Programming and Analysis:** Python (pandas, scikit-learn), R (ggplot2, survival), SQL, SAS, SPSS
- **Tools:** DataLemur (SQL query practice), REDCap, Qualtrics, Microsoft Office (Excel, Word, PowerPoint),
- **Statistical Techniques:** T-tests, ANOVA, Chi-Square, Correlation, Linear & Logistic Regression, Cox Proportional Hazards Model, Survival Analysis
- **Certifications:** SPSS, Statistics in R, Data Science Bootcamp, Adult and Pediatric First Aid/CPR AED Certification

## PUBLICATIONS

Banda, A.; Impomeni, O.; Singh, A.; Baloch, A.R.; Hu, W.; Jaijyan, D.K. Precision in Action: The Role of Clustered Regularly Interspaced Short Palindromic Repeats/Cas in Gene Therapies. *Vaccines* **2024**, *12*, 636.

<https://doi.org/10.3390/vaccines12060636>