# ABHIK ROY

#### **EDUCATION**

Western Michigan University Ph.D. in Program Evaluation

Kalamazoo. MI

Michigan Technological University M.S. in Mathematics

Houghton, MI

West Virginia Wesleyan College B.S. in Mathematics

Buckhannon, WV

## PROFESSIONAL EXPERIENCE

Current 2023

Associate Research Scientist Indiana University

Bloomington, IN

· Conducting various program evaluations.

2023 2016 Assistant Professor West Virginia University

Morgantown, WV

- Authored and co-authored 10+ peer-reviewed publications, contributing to various fields including program evaluation.
- Conducted over 20 rigorous evaluations leading to increases in program effectiveness.
- Designed and deployed multiple interactive surveys using HTML, CSS, and JavaScript on the Qualtrics platform, eliciting responses from a total of about 7,000
- Extracted and cleaned data from multiple remote sources; developed and published 20+ interactive visualizations for public reporting and client dissemination using Rmarkdown and Shinv.
- Mentored 4 Masters and Doctoral students, guiding them to successful completion of their academic research projects.
- Taught courses in evaluation, measurement, research methods, and survey design, with a focus on data science techniques, to over 500 students.

#### CONTACT INFORMATION

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### **EXPERTISE**

Data visualization

Markup using  $L\!\!\!/T_F\!X$ 

Program evaluations from planning to reporting

Quantitative, qualitative, and mixed method studies

**R** programming

Social network analysis

Survey design, administration, and research

Statistical modeling and analysis

**Text analytics** 

Web application development and static/dynamic reporting using



2016 2014 Data Analyst

#### University of Kansas

Lawrence, KS

- · Conducted comprehensive studies using qualitative, quantitative, and mixed-methods approaches, and presented findings to senior management, influencing policy changes.
- Crafted tailored evaluations that met the needs of diverse stakeholders, resulting in actionable insights for multiple non-academic departments.
- Designed and administered surveys to over 300 university students and staff, achieving response rates ranging from 47% 91%.
- Engineered web applications using R and Tableau, streamlining data extraction and visualization processes.
- Spearheaded research initiatives that increased student retention rates by 3% 5% through predictive statistical modeling.

# SELECT EVALUATION WORK

Current 2023

- Lead Program Evaluator & Methodologist Healthy Start Initiative (HRSA-19-049 Total Award: \$5,470,000) West Virginia University Research Corporation Morgantown, WV
  - · Conducted process, monitoring, and impact evaluations at the program level.
  - Designed and validated survey tools, evaluating the experiences of more than 50 participants.
  - · Generated two comprehensive internal evaluation documents and prepared an evaluation proposal aimed at federal funding renewal.
- Utilized a mixed-methods design to independently analyze both longitudinal and cross-sectional data, focusing on the smoking cessation efforts of mothers and the experiences of new or distant caretakers/fathers.

Current 2022

Program Evaluator & Mixed Methods Analyst - Teaching Science with Computational Thinking: Preparing Preservice Elementary Educators of the Future STEM Workforce (2019-NSF 2142274 Total Award: \$294,958.00) West Virginia University

Morgantown, WV

- Administered process evaluations for all program activities.
- Created and employed a longitudinal mixed-method study to reduce and analyze more than 50 open-ended survey responses and six interview session transcripts, leveraging thematic/content analyses and techniques including HDBSCAN/t-SNE, k-Means, and PCA.
- Designed and validated two survey tools for assessing progress and evaluating programmatic impact.
- Produced one in-depth internal evaluation document and crafted evaluation summaries for federal reporting purposes.

2022 2017 Community Program Evaluator & Data Scientist WVCTSI: West Virginia Clinical and Translational Science Institute (2017-NIH 2U54GM104942-02 Total Award: \$20,000,000) Morgantown, WV West Virginia University

- Analyzed extensive datasets using both frequentist and Bayesian methodologies, guiding the direction and activities of eight distinct
- · Authored quarterly reports as well as internal and external annual evaluation documents, disseminated both in print and through interactive formats developed in Rmarkdown.
- Crafted over 100 data visualizations and developed over four Shiny applications for internal and public data exploration, including research collaborations using social network analysis, grant activities pulled from the NCBI API crossed with WVCTSI grant
- numbers, and dissemination of result and changes in practice within and beyond West Virginia.
- · Designed and disseminated tailored Qualtrics surveys enhanced with HTML, CSS, and JavaScript, reaching an audience of over 5,000
- Led local and multi-site, multi-cluster evaluation studies that influenced five core medical research and community engagement
- · Mentored six aspiring graduate students in social data science, steering them through successful research endeavors.

## **MEMBERSHIPS**

American Evaluation Association