# ABHIK ROY



#### **EDUCATION**

- Western Michigan University Ph.D. in Program Evaluation
- Michigan Technological University M.S. in Mathematics
- West Virginia Wesleyan College B.S. in Mathematics

- Kalamazoo, MI
- Houghton, MI
- Buckhannon, WV

## PROFESSIONAL EXPERIENCE

Current 2024

- Associate Research Scientist Indiana University
  - · Applied Advanced Research Methods. Conducted quantitative and qualitative studies to address complex questions in policy and practice.
  - · Built Relationships with Stakeholders. Engaged with funders, partners, and collaborators to align research initiatives and program evaluations with broader study goals.
  - Conducted Data Analysis. Analyzed large educational, survey, and open text data sets, generating insights to drive decisionmaking and inform strategic initiatives.
  - · Created Accessible Data Visualizations. Designed data visualizations using R and Shiny to communicate insights to diverse audiences, improving usability and decision-making across teams.
  - · Delivered Presentations and Reports. Presented findings from evaluation studies to a wide range of audiences, including interdisciplinary teams and stakeholders.

- Bloomington, IN
- Developed Competitive Proposals. Led the creation of grant proposals, defining objectives, methodologies, and timelines to secure external funding for key projects.
- Facilitated Collaborative Efforts. Worked with external partners to align research findings with practical applications and policy development.
- Led Interdisciplinary Teams. Guided collaborative research efforts to generate innovative solutions and enhance project
- · Managed Research and Evaluation **Projects**. Directed the planning and execution of small to medium-sized research and evaluation projects aligned with project goals.
- Translated Research into Action. Applied research insights to support policy development and inform the design and evaluation of programs.

## CONTACT INFORMATION

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#### **EXPERTISE**

**Data visualization** 

Markup using  $\angle TFX$ 

Program evaluations integrating both traditional and machine learning methods

Quantitative, qualitative, and mixed method studies

programming

Social network analysis

Survey design, administration, and research

Statistical modeling and analysis

**Text analytics** 

Web application development and static/dynamic reporting using



2023 2016 Assistant Professor

West Virginia University

Morgantown, WV

- Authored Peer-Reviewed Publications. Published over 10 articles in high-impact journals, contributing to advancements in program evaluation, research methodologies, and applied social science.
- Developed Automated Systems for Data Collection and Analysis. Established automated systems to streamline data collection. cleaning, and analysis processes, improving efficiency and accuracy across multiple research projects.
- Designed and Launched Innovative Surveys. Created and implemented interactive, web-based surveys using HTML, CSS, and JavaScript on the Qualtrics platform, generating over 7,000 responses across multiple projects and studies.
- Directed and Participated in Evaluations. Contributed to 12 program evaluations, including serving as the lead evaluator on multiple federally funded grants.

- Extracted, Analyzed, and Visualized Data. Processed and visualized data from internal research and remote sources, creating over 20 interactive visualizations using RMarkdown and Shiny for academic and stakeholder dissemination.
- Mentored Graduate Students. Guided three Master's students and one PhD student through the successful completion of their research projects, advancing their professional development.
- Presented at National Academic Conferences. Delivered presentations at over 20 academic conferences, with a majority being national-level events, sharing research findings with a broad academic audience.
- Taught Research and Methods-Based Courses. Instructed over 500 students in evaluation, research methods, measurement, and survey design, focusing on practical, analytical skills in data science.

2016 2014 Data Analyst University of Kansas

learning.

Lawrence, KS

- Analyzed the Impact of Student Services. Conducted qualitative and quantitative analysis to assess the effect of advising and engagement initiatives on student retention and graduation outcomes. - Built Web Applications and Dashboards. Automated data extraction and visualization using R and Tableau, improving access and reporting for student-level data from the university's Oracle server. -Conducted Research to Improve Retention. Developed statistical models that identified gaps in student retention strategies, contributing to a 3% to 5% increase in retention rates for at-risk groups. - Designed and Executed Questionnaires. Developed and implemented surveys for approximately 300 students and staff, achieving response rates between 47% and 91% across various projects. – **Developed an Evaluation** Model for Advising. Created a comprehensive evaluation model by integrating a Delphi study, mixed-methods research, and survival analysis of student retention data. - Led Tailored Evaluations. Conducted needs assessments and led participatory evaluations for non-academic units, focusing on data-driven insights and stakeholder empowerment.



# 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
- Designed and validated survey tools, evaluating the experiences of Implemented a mixed-methods study of longitudinal and crossmore than 50 participants.
- Generated two comprehensive internal evaluation documents and prepared an evaluation proposal aimed at federal funding renewal.
  - sectional data on smoking cessation in mothers and caretaker experiences.

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) Morgantown, WV West Virginia University

- · Administered process evaluations for all program activities. • Conducted a longitudinal mixed-method study, analyzing over 50 surveys and six interviews using thematic analysis and machine
- 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)

West Virginia University

Morgantown, WV

- Created over 100 data visualizations and developed four Shiny applications for comprehensive data exploration and research collaboration.
- Developed and disseminated tailored Qualtrics surveys, enhanced with HTML, CSS, and JavaScript, reaching over 5,000 individuals.
- Directed local and multi-site evaluation studies, influencing five core medical research and community engagement units.
- Mentored multiple graduate students in social data science, leading them through successful research projects.
- Produced quarterly and annual evaluations, disseminating findings in both print and interactive formats via Rmarkdown.
- Utilized frequentist and Bayesian methods to analyze datasets, guiding the direction of eight programs.