





# 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





2023  
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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 respondents.
  - Extracted and cleaned data from multiple remote sources; developed and published 20+ interactive visualizations for public reporting and client dissemination using Rmarkdown and Shiny.
  - 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.

2016  
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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.

## CONTACT INFORMATION

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## EXPERTISE

**Data visualization**

**Markup using *L<sup>A</sup>T<sub>E</sub>X***

**Program evaluations from planning to reporting**

**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**



## SELECT EVALUATION WORK

Current  
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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  
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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  
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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

- Analyzed extensive datasets using both frequentist and Bayesian methodologies, guiding the direction and activities of eight distinct programs.
- 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 individuals.
- Led local and multi-site, multi-cluster evaluation studies that influenced five core medical research and community engagement units.
- Mentored six aspiring graduate students in social data science, steering them through successful research endeavors.

2020  
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2017

*Lead Program Evaluator*  
GAUSSI: Generating, Analyzing, and Understanding Sensory and Sequencing Information: A Trans-Disciplinary Graduate Training Program in Biosensing and Computational Biology ([2017-NSF 1450032](#) Total Award: \$3,013,779)  
Colorado State University

 Fort Collins, CO

- Conducted process evaluations for 4 grant-related programs, leading to gains in member tracking, program efficiency, and participant satisfaction.
- Constructed assessment and longitudinal data visualizations, supporting inferential statistical analyses to study trends and assist in recruitment and retention efforts.
- Developed and distributed customized Qualtrics surveys built with CSS and JavaScript, achieving a 95% response rate.
- Directed unstructured and semi-structured interviews and focus groups, gathering qualitative data from 100+ participants.
- Extracted, cleaned, and visualized secondary data for various research objectives.
- Implemented mixed methods evaluations, resulting in 9 published reports that influenced program policies and were used for reporting to the funding agency.

## MEMBERSHIPS

 American Evaluation Association