





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 submitted 15 peer-reviewed publications, contributing to various fields including program evaluation.
 - Conducted over 20 rigorous evaluations leading to increases in program effectiveness.
 - Designed and deployed interactive surveys using HTML, CSS, and JavaScript on the Qualtrics platform, reaching up to 4,000 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 $LATEX$

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






WWW 

SELECT EVALUATION WORK

Current 2023	<ul style="list-style-type: none"> Lead Program Evaluator & Methodologist Healthy Start Initiative (HRSA-19-049 Total Award: \$5,470,000) West Virginia University Research Corporation <div>  Morgantown, WV </div> <ul style="list-style-type: none"> Developed and validated survey instruments, assessing experiences of over 50 participants. Conducted process, monitoring, and impact evaluations. Employed mixed methods designs to independently study longitudinal and cross-sectional data on the smoking cessation efforts of mothers and experiences of new and/or distant fathers.
Current 2022	<ul style="list-style-type: none"> Lead 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 <div>  Morgantown, WV </div> <ul style="list-style-type: none"> Applied mixed methods text analysis to evaluate written and interview data from 50+ participants. Constructed and validated survey instruments, achieving an 80%+ response rate. Implemented process and impact evaluations of multiple program activities.
2022 2017	<ul style="list-style-type: none"> Program Evaluator & Data Scientist WVCTSI: West Virginia Clinical and Translational Science Institute (2017-NIH 2U54GM104942-02 Total Award: \$20,000,000) West Virginia University <div>  Morgantown, WV </div> <ul style="list-style-type: none"> Analyzed large datasets using frequentist and Bayesian methods, influencing the direction and activities of 8 programs. Authored quarterly and internal/external annual evaluation reports for dissemination via hard copy and interactive R. Conducted local and multi-site multi-cluster evaluation studies, impacting 5 different core units. Created numerous data visualizations and 4+ Shiny applications for public and internal outcome data exploration. Developed and distributed customized Qualtrics surveys built with CSS and JavaScript, reaching 5,000+ individuals. Mentored 6 future graduate social data scientists, guiding them through successful research projects.
2020 2017	<ul style="list-style-type: none"> 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 <div>  Fort Collins, CO </div> <ul style="list-style-type: none"> 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.

SELECT PRESENTATIONS AND TALKS

2022	<ul style="list-style-type: none"> Best of Both Worlds: Affordances of Mixing Machine Learning and Qualitative Content Analysis. <i>American Educational Research Association Annual Meeting</i> <div>  San Diego, CA </div>
2020	<ul style="list-style-type: none"> These Aren't Random Words Just Strung Together?: Using Machine Learning and Pretty Visualizations to Discover Topics in Articles. <i>American Evaluation Association Annual Conference</i> <div>  virtual </div>
2019	<ul style="list-style-type: none"> Why Is It That Writers Write but Fingers Don't Fing? Using Machine Learning and Lexemes to Make Sense of Nonsense. <i>American Evaluation Association Annual Conference</i> <div>  Minneapolis, MN </div>