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 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

⬟ 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*)
West Virginia University
📍 Morgantown, WV

- 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

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.

🖥 SELECT PRESENTATIONS AND TALKS

2022

Best of Both Worlds: Affordances of Mixing Machine Learning and Qualitative Content Analysis.
American Educational Research Association Annual Meeting
📍 San Diego, CA

2019

Why Is It That Writers Write but Fingers Don't Fing? Using Machine Learning and Lexemes to Make Sense of Nonsense.
American Evaluation Association Annual Conference
📍 Minneapolis, MN