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 | 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 | 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

Lead Program Evaluator & Methodologist
Healthy Start Initiative (*HRSA-19-049* Total Award: *$5,470,000*)
West Virginia University Research Corporation
📍 Morgantown, WV

- Developed and validated survey instruments, assessing experiences of over 50 participants.
- Conducted process, monitoring, and impact evaluations.
- Employed mixed methods designs to analyze longitudinal and cross-sectional data on motherhood smoking cessation and fatherhood experiences, respectively.

Current | 2022

Lead Program Evaluator & Mixed Methods Ananlyst
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

- 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

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

2020

These Aren't Random Words Just Strung Together?: Using Machine Learning and Pretty Visualizations to Discover Topics in Articles.
American Evaluation Association Annual Conference
📍 *virtual*

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