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

2023 2016

Assistant Professor

West Virginia University

- · Contributed to peer-reviewed publications by authoring and submitting scholarly papers.
- Conducted rigorous evaluations of a variety of programs, projects, and grants, contributing to their optimization and effectiveness.
- Designed and implemented dynamic and interactive surveys using HTML, CSS, and JavaScript in the Qualtrics platform.
- Extracted, wrangled, and cleaned data from various remote sources; developed

Morgantown, WV

- a range of visualizations from static to interactive for report embedding or dissemination, and built web apps in Shiny all within R/RStudio.
- · Instructed classes in evaluation, measurement, and research methods, emphasizing the application of data science techniques.
- Mentored Masters and Doctoral students, guiding their academic pursuits and research activities.

2016 2014

Data Analyst

University of Kansas

- Authored detailed evaluation reports, catering to the requirements of diverse stakeholders.
- Conducted research and deployed predictive statistical models aimed at enhancing student retention and graduation efforts.
- Developed web applications using Shiny and Tableau, facilitating extraction,

Lawrence, KS

- summarization, and visualization of data from the organization's Oracle database
- Spearheaded and delivered presentations on findings from comprehensive qualitative, quantitative, and mixed-methods studies, both large and small.

CONTACT INFORMATION

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EXPERTISE

Content, cluster, and social network analysis

Data visualization

Modeling and analysis using statistics and machine learning

Planning and conducting program evaluations

Programming and analysis in **(p**) with markup using $L\!\!\!/T_E\!X$

Quantitative, qualitative, and mixed method designs and analyses

Small- and large-scale survey design, implementation, and analyses

Web app development and static/dynamic reporting using







SELECT PROJECTS

Current | 2023 Lead Program Evaluator & Methodologist

Healthy Start Initiative

West Virginia University Research Corporation

Morgantown, WV

- Building valid and reliable survey instruments to assess participant experiences.
- Implementing process, monitoring, and impact evaluations of programmatic activities.
- Utilizing mixed methods designs to study participant data.
- Total Award: \$5,470,000
- HRSA-19-049

Current | 2022 Lead Program Evaluator & Mixed Methods Ananlyst

Teaching Science with Computational Thinking: Preparing Preservice Elementary Educators of the Future STEM Workforce West Virginia University

• Morgantown, WV

- Applying mixed methods text analysis of written and interview data using thematic analysis and various machine learning methods.
- Constructing and validating survey instruments used to assess progress and programmatic impact.
- Implementing process and impact evaluations of program activities.
- Total Award: \$294,958.00
- · 2019-NSF 2142274

2022 | 2017 Program Evaluator & Data Scientist

WVCTSI: West Virginia Clinical and Translational Science Institute West Virginia University

• Mentored future graduate social data scientists.

- Analyzed large data sets using frequentist and Bayesian methods.
- Conducted local and multi-site mutli-cluster evaluation studies.
- Developed/validated items and distributing customized Qualtrics surveys built with CSS and Javascript.
- Pulled, wrangled, and visualized secondary data in R.
- Total Award: \$20.000.000
- 2017-NIH 2U54GM104942-02

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

Colorado State University

• Fort Collins, CO

Morgantown, WV

- Conducted process evaluations of multiple grant related programs.
 Developed and distributed customized Qualtrics surveys built with
- CSS and Javascript.
- Directed unstructured and semi-structured interviews and focus groups assessing participant experiences.
- Implemented mixed methods evaluations to study program impacts on students and faculty.
- Pulled, wrangled, and visualized secondary data.
- Total Award: \$3,013,779
- 2017-NSF 1450032

SELECT 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