ABHIK ROY

EDUCATION

2016

Western Michigan University Ph.D. in Program Evaluation

Kalamazoo, MI

2007

Michigan Technological University M.S. in Mathematics

Houghton, MI

2001

West Virginia Wesleyan College B.S. in Mathematics

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: Eliminating Disparities in Perinatal Health West Virginia University Research Corporation

Morgantown, WV

• Building valid and reliable survey instruments to assess participant experiences.

Utilizing mixed methods designs to study participant data.
 Total Award: \$4,870,000

 Implementing process, monitoring, and impact evaluations of programmatic activities. • 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.
- Implementing process and impact evaluations of program activities.
- Total Award: \$294,958.00
- Constructing and validating survey instruments used to assess progress and programmatic impact.
- · 2019-NSF 2142274

2022 | 2017 Program Evaluator & Data Scientist

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

Morgantown, WV

- 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.
- Mentored future graduate social data scientists.
- · 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

• 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