






# 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

- Current | 2016 • *Assistant Professor*  
West Virginia University  Morgantown, WV
  - Advising masters and doctoral level students.
  - Authoring and submitting papers to peer reviewed publications.
  - Pulling data from multiple remote sources, constructing static, active, and interactive visualizations for production and/or embedding within reports, and building Shiny apps and APIs within the R/RStudio environment.
  - Developing enhanced and interactive surveys in Qualtrics using HTML, CSS, & Javascript.
  - Evaluating various programs, projects, and grants.
  - Teaching evaluation and methods based classes with a focus on data science.
- 2016 | 2014 • *Data Analyst*  
University of Kansas  Lawrence, KS
  - Created web apps in Shiny and Tableau to pull, summarize, and visualize data from the organization's Oracle database.
  - Prepared evaluation reports for various stakeholders.
  - Researched and implemented predictive statistical models for student retention and graduation efforts.
  - Led and presented findings from small and large scale qualitative, quantitative, and mixed-methods studies.






## SELECT PROJECTS

- 2022 • *Mixed Methods Analyst & Program Evaluator*  
Teaching Science with Computational Thinking: Preparing Preservice Elementary Educators of the Future STEM Workforce  
West Virginia University  Morgantown, WV
  - Implementing process and impact evaluations of program activities
  - Conducting quantitative text analysis of written and interview data using machine learning
  - Constructing and validating survey instruments used to assess progress and effect
  - Total Amount: \$294,958.00



WWW 

## CONTACT INFORMATION

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## EXPERTISE

**Data visualization**


**Content, cluster, and social network analysis**

**Modeling using statistics and machine learning**

**Text mining**

**Planning and conducting program evaluations**

**Designing and administering small- and large-scale surveys**

**Programming and analysis in  with markup using *L<sup>A</sup>T<sub>E</sub>X***

**App development and dynamic reporting using**



2022  
|  
2017



### *Data Scientist & Program Evaluator*

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

📍 Morgantown, WV

- Analyzing large data sets using frequentist and Bayesian methods.
- Conducting local and multi-site multi-cluster evaluation studies.
- Developing/validating items and distributing customized Qualtrics surveys built with CSS and Javascript.
- Pulling, wrangling, and visualizing secondary data in R.
- Mentoring future graduate social data scientists.
- Total Amount: \$20,000,000
- Website: [PERC](#)

2020



### *Program Evaluator*

Research Initiative: A Holistic Cross-Disciplinary Project Experience as a Platform to Advance the Professional Formation of Engineers

West Virginia University

📍 Morgantown, WV

- Advising engineering faculty and graduate students on implementation of study methods.
- Conducting quantitative and qualitative studies on undergraduate student experiences within grant related programs.
- Total Amount: \$200,000

2020  
|  
2017



### *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

- Conducting biannual evaluations of multiple grant related programs.
- Developing and distributing customized Qualtrics surveys built with CSS and Javascript.
- Pulling, wrangling, and visualizing secondary data in R.
- Writing annual program and National Science Foundation reports.
- Total Amount: \$3,013,779



## 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

Made in Source code

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