

# Eric Ekholm

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I am a data scientist with over 5 years of experience using data to improve educational practice and decision making. I have hands-on experience in research design, machine learning, software engineering, and cloud computing. I am particularly passionate about communicating the results of my work in accessible language and intuitive visualizations.

## Work Experience

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### Data Specialist 2021-Present

*Chesterfield County Public Schools, Midlothian, VA*

- Built dashboards displaying student assessment performance accessed by hundreds of users, using R, Shiny, Docker, and Google Cloud.
- Evaluated the return on investment of over \$5 million in new and existing programs using quantitative and qualitative methods.
- Developed and maintained several internal R packages used by the entire Research and Evaluation team.
- Developed and maintained ETL pipelines for integrating data from vendors into internal databases, using R, Go, and SQLServer.
- Fit an early warning model predicting student chronic absenteeism using R and the tidymodels framework. Educated division leaders on appropriate use of this model.
- Created and maintained an internal website containing all reports written by the Research and Evaluation team, using Quarto, Python, and Google Cloud.
- Led the migration of analytics tools from locally-hosted tools to Google Cloud tools, improving team efficiency.

### Associate Director, Early Childhood Data 2019-2021

*Virginia Department of Education, Richmond, VA*

- Oversaw the development of LinkB5, a data portal used by thousands of early childhood programs across Virginia.
- Led data sharing and research efforts with external partners, including public and private organizations.
- Created hundreds of individualized early childhood reports and visuals for state legislators, using R and Rmarkdown.
- Combined data from public and internal sources to develop a model estimating the proportion of eligible children served by Virginia's early childhood programs. This model was used as part of a successful effort to appropriate millions in additional funding for early childhood programs.

### Graduate Research Assistant 2016-2019

*Virginia Commonwealth University School of Education, Richmond, VA*

- Published [11 peer-reviewed articles](#) on a variety of topics in education and quantitative methodology.
- Led statistical modeling and data management for the Motivation in Context lab.

## Education

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### Ph.D, Educational Psychology 2016-2019

*Virginia Commonwealth University, Richmond, VA*

### M.T., Education 2011-2012

*Virginia Commonwealth University, Richmond, VA*

### B.A., English 2006-2010

*Virginia Tech, Blacksburg, VA*

## Technologies and Languages

**Languages:** R, SQL, Go, Julia, Python, Bash

**Technologies:** Git, Quarto, Postgres, SQLServer, NoSQL, Google Cloud Platform, Docker

**Other:** Machine learning, Causal inference, Statistics, Data visualization, Research design, Data structures and algorithms

## Projects

**Flex Creek:** Workout tracking and recommendation application in Go. Concepts include REST API design, NoSQL database (Firestore), and JWT authentication. See the [source on Github](#).

**Saul:** AI-powered lesson plan generator written in Go. Concepts include integration with the OpenAI API, REST API design, and front-end templating. See the [source on Github](#)

**Leakybrain:** A [technical notes site](#) containing notes on statistics and data science workflows, among other things.