# **EMPOWERING INSIGHTS:** BRIDGING THE DATA DIVIDE FOR VIRGINIA DEPARTMENT OF SOCIAL SERVICES

# **CASE STUDY**

Elder Research partnered with The Virginia Department of Social Services to build and facilitate a training program that solved a growing need for expanding the skills of their internal data science team.

## THE CHALLENGE

The Virginia Department of Social Services faced a significant challenge as their workforce, despite possessing domain expertise, lacked the necessary skills to access and analyze the diverse datasets required for routine reporting and analysis. This skill gap hindered their ability to generate comprehensive reports and derive actionable insights from the data, impacting the overall efficiency of their operations.

## THE SOLUTION

A fully customized learning program was developed and delivered. This program empowered participants with tools, processes and handon experience.

The program specifically targeted SQL data querying and analysis skills, identified as crucial gaps across both state and local social service agencies. Through a combination of **interactive lectures**, **hands-on exercises**, **and real-world examples utilizing VDSS data**, participants acquired the necessary knowledge and skills to effectively access, manipulate, and analyze complex datasets. The capstone project provided a practical application opportunity, enabling students to apply their newly acquired skills to their own job-related datasets and challenges.

By successfully completing the program, participants demonstrated their proficiency in leveraging data-driven techniques to produce accurate reports, derive meaningful insights, and enhance decision-making processes within the Virginia Department of Social Services.

This initiative ultimately empowered the workforce to overcome data-related obstacles, leading to improved operational efficiency, enhanced reporting capabilities, and informed decision-making throughout the department.

### **CLIENT**

The Virginia Department of Social Services

#### **INDUSTRY**

Government

#### **BUSINESS NEED**

Development of data querying and data analysis skillsets.

## SOLUTION

Built and delivered a custom course focusing on data querying and data analysis with specific customer-based use cases to enable optimal application of skillsets in jobrelated tasks .

#### BENEFIT

Improved analysis skillsets so that domain experts could perform their own data-based tasks and analysis.

OFFICE LOCATIONS

Charlottesville, VA | Baltimore, MD Raleigh, NC | Washington, DC

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elderresearch.com

434.973.7673

contact@elderresearch.com



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#### BENEFIT

Implementing the tailored training program on data querying and analysis offered numerous benefits for the Virginia Department of Social Services and other local social services agencies. The program equipped employees with essential skills, enhancing their ability to access, manipulate, and analyze complex datasets.

> **100%** of the participants said they "**would recommend** the course to a colleague or friend"

**94%** of participants said the program was "helpful in enhancing their understanding

of data analysis and queries"

"This class challenged me. I have more knowledge than I did before the class, and I am excited to continue to use the tools I have learned."

#### RESULTS

This resulted in improved reporting capabilities, with more accurate and timely reports being generated. The program also increased operational efficiency by addressing the skill gap and enabling employees to work more efficiently. Job performance saw a notable improvement, as participants applied their skills to job-related datasets and challenges. The program empowered the workforce, fostering confidence, motivation, and ownership of datadriven tasks. Additionally, collaboration and knowledgesharing among state and local social service agencies were strengthened.

Overall, the training program created a more skilled, productive, and collaborative workforce, while improving reporting, decision-making, and operational efficiency within the department and across agencies.

DATA SCIENCE · AI · MACHINE LEARNING -

### **ABOUT ELDER RESEARCH**

Elder Research is a recognized leader in the science, practice and technology of advanced anlaytics. We have helped government agences and Fortune Global 500<sup>®</sup> companies solve real-world problems across diverse industries. Our areas of expertise include data science, text mining, data visualization, scientific software engineering, and technical teaching. With experience in diverse project and algorithms, advanced validation techniques, and innovative model combination methods (ensembles), Elder Research can maximize project success to ensure a continued return on an organizations analytics investment.

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