

# Michael William Fouts

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## Professional Profile

Data scientist with experience in data analysis, project management, compliance, modeling, and technical training with a specialty in natural gas utilities. View personal data science projects at [michaelwfouts.github.io](https://michaelwfouts.github.io).

## Work Experience

**Deloitte;** Arlington, VA

Data Science Consultant

July 2021 – Present

- Performed NLP analysis with Python on Federal Agencies Climate Adaptability Plans to identify Deloitte's best ways to go to market. Presented findings to leaders up to the Managing Director level.
- Created data pipeline using Python to automate the data ingestion from excel spreadsheets saving ~10 hours (30% of work) per quarter.

**Eastern Gas Transmission and Storage (A Berkshire Hathaway Company);** Bridgeport, WV

Gas Measurement Engineer/Data Quality Engineer

June 2017 – July 2021

Gas Measurement Intern

May 2015 – Aug. 2016

- Created a system that automatically identifies compliance issues on test reports using complex SQL queries increasing issues found by ~120% and saving ~400 hours/year compared to manual audits. System also performs audits not previously done estimated to save ~1600 additional hours/year compared to manual audits. System doubles as a continuous training opportunity for technicians, having reduced the number of report errors by 44% over a 7 month period. Metrics reported using R Markdown.
- Worked as Project Manager and Business Lead on a big data project to monitor lost and unaccounted for gas. Outside of management, personal contributions included creating and modifying dashboards using R Shiny. Project saved ~100 hours/year work in 2020 and is projected to increase to at least 400 additional hours saved/year in 2021. While most anomalies caught effect accuracy by ~\$1,000 - \$5,000, the largest anomaly caught lead to a ~\$400,000 adjustment.
- Lead data analysis program calculating the capability index of ~5,000 process transmitters to identify issues with their performance and develop a replacement program to increase system accuracy.
- Performed comprehensive analysis of analyzers and transmitters, including designing tests and collecting data, to evaluate product performance. Required to present technical data for internal reporting. Results helped lead to millions of dollars in purchases for the standardization of new equipment.
- Managed a ~\$1.12 million/~\$2.52 million capital project budget within 2% in 2018/2019 respectively.
- Lead internal standards creation, evaluation, and enforcement to ensure high quality documentation.

**Pierpont Community and Technical College;** Fairmont, WV

Adjunct Gas Measurement Instructor

Spring 2020/2021

- Taught Gas Measurement course required for second year students in the Petroleum Technology Associates program. Educated students on a curriculum combining hands on and lecture learning.

**National Aeronautics and Space Administration (NASA) IV & V ;** Fairmont, WV

NEAP Intern

Summers of 2013 and 2011

- Created failure traces within James Webb Space Telescope's fault management database
- Conducted advanced software analysis using MATLAB and Simulink

## Education

**West Virginia University,** Morgantown, WV

May 2017

Major: Chemical Engineering; Minor: Mathematics

**Cumulative GPA: 4.00/4.00**

## Skills and Honors

Software and Programming - Proficient in Python, SQL, R, VBA, Qlik, Tableau, and Microsoft Office.

Honors - 2017 West Virginia University Outstanding Senior (Top 1% of all West Virginia University)