**Overview**

Over the past four weeks, you’ve covered a lot of material! You’re well on your way to becoming a data scientist. To recap the content so far, you have:

* Received a quick introduction to the data science workflow, including exploration, visualization, statistics, and machine learning
* Gotten hands-on experience with analyzing data in Excel
* Learned about dashboards and reports in Power BI
* Discovered how to use key storytelling principles to generate high impact with data

This is the first project that you will complete through the boot-camp. These projects both provide you with hands-on experience and can serve as the start of your data science portfolio!

For the first project, you are going to be developing an exploratory data analysis report. You can choose to use either Excel or Power BI. The overall goal is to produce a report that

1. Highlights at least one interesting aspect of the data, and
2. Allows a reader to interactively explore other aspects of the data

**Concepts covered:**

* Exploratory data analysis
* Analytics storytelling
* Basic data analysis and visualization in Excel and/or Power BI

**The Dataset**

The dataset we’ll be using is about workplace fatalities. It can be found [here](https://drive.google.com/file/d/1xeB3n0mfszEAEmygEZRvSEzfeqS7P_zv/view). Within this dataset, you’ll find data points on fatalities, injuries, inspections, and penalties for each state in the US for the year 2012.

**Requirements**

Your report will be evaluated on how well it meets the following criteria:

1. Summarizes descriptive statistics about the data, including at least one descriptive visualization, such as a box-and-whisker plot or histogram displaying the distribution of a variable
2. Contains an interactive element that lets a user cut into the data, e.g., an Excel pivot table with slicers
3. Generates interesting questions about the data and explores those questions with two or more visualizations that highlight an insight about the data, possibly applying transformations to the data. For example, a scatter or line plot showing the relationship between two variables.
4. Effectively uses of analytical storytelling to convey insight(s), including good practices for visualizations

As part of these criteria, your report should answer **at least** the following questions:

* Which program, state or federal, has the highest rate of fatalities? Fed. Why? Could this be connected to the number of inspectors and the rate of inspections?
* Which state with a state program has the highest number of injuries/illnesses? – California Why?
* What is the relationship, if any, between “Average of Years to Inspect Each Workplace Once” and “Rate of Fatalities”? - Positive

# Guide to Optimizing Your GitHub Profile for Job Search

## Introduction

Your GitHub profile is not just a place to store your code; it's also a powerful tool for showcasing your skills and expertise to potential employers. By optimizing your GitHub profile, you can significantly enhance your chances of landing your dream job in the tech industry. This guide will walk you through the essential steps to optimize your GitHub profile effectively.

## 1. Profile Overview

![GitHub Profile Overview](./GitHub\_profile\_overview.png)

- \*\*Profile Picture\*\*: Use a professional-looking profile picture to make a good first impression.

- \*\*Bio\*\*: Write a concise and informative bio that highlights your skills, interests, and career goals.

- \*\*Location and Contact Information\*\*: Make sure your location and contact information are up-to-date and easily accessible.

## 2. Repository Organization

When creating your repository for a project, follow these recommendations to structure it effectively:

- \*\*Create a README.md\*\*: Start by creating a README file in Markdown format. Your README should provide a comprehensive overview of your project, including its purpose, methodology, results, and conclusions. Use sections such as "Summary," "Business Problem," "Data," "Methods," "Results," "Conclusions," and "For More Information" to organize your content.

Example:

```markdown

# Title: Enhancing Spotify's Recommendation System with Context-Specific Music Recommendations

\*\*Author:\*\* John Doe

\*\*Institution:\*\* QuickStart

\*\*Active Project Dates:\*\* Jan 1st, 2023 - March 1st, 2023

## Summary

[Brief overview of your project]

## Business Problem

[Description of the business problem your project addresses]

## Data

[Description of the dataset used in your project]

## Methods

[Description of the methods and techniques used in your project]

## Results

[Summary of the results obtained from your project]

## Conclusions

[Conclusions drawn from your project and recommendations for future work]

## For More Information

Please review the full analysis in [the Jupyter Notebook](./full\_analysis.ipynb) or [the presentation](./presentation.pdf).

For any additional questions, please contact John Doe at <jdoe@gmail.com>, or on [LinkedIn](https://www.linkedin.com/in/jdoe/).

```

- \*\*Include Necessary Files\*\*: Organize your repository by including necessary files such as code scripts, Jupyter Notebooks, presentations, and datasets in separate directories. Use clear and descriptive filenames for easy navigation.

Example:

```markdown

├── data

├── images

├── .gitignore

├── app.py

├── full\_analysis.ipynb

├── presentation.pdf

├── README.md

└── updates\_msd\_audio\_features.ipynb

```

By incorporating a detailed README following the provided format, you provide potential employers with a clear understanding of your project, making it easier for them to assess your skills and expertise.

## 3. Project Showcase

- \*\*Pin Important Projects\*\*: Utilize the "Pinned repositories" feature to showcase your best and most relevant projects at the top of your profile.

- \*\*Add README Files\*\*: Write detailed README files for each project, including project descriptions, installation instructions, and usage examples.

- \*\*Include Screenshots and Demos\*\*: Add screenshots, gifs, or links to live demos to visually demonstrate your projects.

## 4. Contributions and Activity

- \*\*Contribute to Open Source\*\*: Contribute to open-source projects relevant to your interests and expertise to demonstrate your collaboration skills.

- \*\*Commit Regularly\*\*: Make regular commits to your repositories to show your activity and dedication.

- \*\*Comment Your Code\*\*: Write clear and informative commit messages and comments in your code to help others understand your contributions.

## 5. Skills and Technologies

- \*\*Highlight Skills\*\*: Use GitHub's "Languages" and "Topics" features to highlight the programming languages, frameworks, and technologies you're proficient in.

- \*\*Include Projects Using Various Technologies\*\*: Showcase projects that demonstrate your skills in different technologies to showcase your versatility.

## 6. Additional Tips

- \*\*Customize Your Profile\*\*: Take advantage of GitHub's profile customization options, such as adding a personal website link or customizing your profile README.

- \*\*Stay Active in the Community\*\*: Engage with other developers, participate in discussions, and showcase your knowledge to establish yourself as an active member of the GitHub community.

## Conclusion

Optimizing your GitHub profile is a crucial step in your job search journey as a data analytics professional. By following the tips outlined in this guide, you can effectively showcase your skills, experience, and passion for programming, increasing your chances of standing out to potential employers.