



# Women Who Code

Mission: Predictable - A Virtual Machine Learning Hackathon

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## Our Project

*Our project made it to the Hackathon Finals as one of the Top 7, of over 60 submissions received by the Women Who Code team.*

COVID-19 is a global crisis impacting millions of people world-wide. Specifically, in the US, the disparities between the size of the black population and the percentage of black people infected with, hospitalized with, or dead from COVID-19 appear to be the most severe.

To battle this inequality our team chose to build an unsupervised machine learning model using **AWS Sagemaker pre-built algorithms**, such as: **K-means clustering** to perform population segmentation and dimensionality reduction techniques like **PCA** to evaluate a large number of features. These features include US Census Data, US COVID-19 cases, deaths, and policies to help us discover new trends and patterns in solving this crisis impacting the black communities in the US.

The data and our analysis reveals a link that's hard to ignore between **race, poverty, cases and deaths** in America. Our analysis demonstrates the features that are impacted:

### **by Government Policies**

- *Relaxing stay at home measures*
- *Initiating early business re-opening*
- *Obtaining health insurance*
- *Obtaining paid sick leave*

### **by Socioeconomic Issues**

- *Living under Federal Poverty Line*
- *Unemployment*
- *Access to Internet*

These factors indicate an infrastructure issue in America and the need for having a **National policy** on **Health Care** and **Income Inequalities**.



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<https://github.com/spettiett/WWC-Battle-COVID19>





## The Team

Our team is represented by Omega Markos and Sharonda Warner. We first joined forces as part of a cohort with Flatiron's School attending their Data Science program that gives students the breadth and depth needed to become well-rounded data scientists and *"level-up"* our careers. Then, with the excitement around Women Who Code | Mission: Predictable - A Virtual Machine Learning Hackathon when joined forces, again to learn **AWS Sagemaker**, *together*, to build our machine learning model to help Battle Covid-19.

What we wanted to accomplish in this Hackathon was to uncover more insights into the ... *Why?*... And find out, if ... *Disasters do Discriminate*.

## About Us

### Sharonda Warner

Data Scientist and Business Intelligence professional with a passion for finding meaningful insights through statistical tools and analytics. With a background in data science, technical consulting, and computer science, I have worked for several Fortune 500 companies to help improve employee and customer engagements, by developing CRM applications and BI platforms. I am equally excited about sharing my career journey with young girls inspiring them to get into technology ... *"Each one teach one..."* has been my guiding light for continued excellence in all that I do.

### Omega Markos

Data Scientist with a strong background in statistics and experience in data mining, statistical analysis, and machine learning. I bring strong analytical skills to tech projects with the compelling desire to build projects that create an impact in society.

