

Hamza Musse

Education

Master of Public Policy, Quantitative Analysis - University of Minnesota
Bachelor of Arts, Political Science - University of Minnesota

Sept. 2015—Sept. 2017
Sept. 2012 – Aug. 2016

Analytics professional with 5 years of scientific research and business intelligence. Developed the official Minnesota rail system map designed from customer survey results. Independently designed the survey, recruited customers, recorded and analyzed results, and presented map prototypes to the General Manager. Map was mass produced 3 months later and installed in over 100 train cars. Skilled communicator with entrepreneurial attitude, exploring the intersection of Data Science and Software Development.

Software Projects

AWS Health Data ETL Pipeline

02.2019 - 08.2019

- Set up data clusters on AWS RDS that ingest over 10M raw clinical patient records from disparate sources.
- Designed data model that links patients to hospital visits and medication and aggregates to community demographics.
- Parsed and cleaned patient data sets from 4 separate hospital systems and created a single standardized patient dataset.
- Uncovered over \$900M of excess healthcare costs among heart disease patients by combining client data with ACS variables
- Utilized Python for ETL, Python for Data Science, Power BI, Statistics, client relationship management to identify client priorities and Agile to efficiently deliver products to meet requirements of business objectives.

Blogging Web Application

09.2019 - 10.2019

- Created blogging site consisting of 9 separate HTML templates that cover all CRUD commands.
- Connected a database to blogging site so anyone can create an account, read posts, and create and delete their own posts.
- Leveraged Full Stack Development with Python, Object Oriented Programming, Flask, MVC, REST API, Git and Heroku CLI.

Personal Portfolio Page

09.2019 - 10.2019

- Created a static website to introduce myself and provide brief summaries of my data science and software projects
- Utilized Python Flask framework, HTML, CSS. Deployed with Heroku.

Work Experience

ASR Analytics - Washington, DC

Data Engineer

10.2019 - Present

- Created R data pipeline that automatically pulls data from separate IRS data sets and merges into single source of truth.
- Organized meetings with frontend developers to translate dashboard design into data step-by-step data wrangling tasks.
- Created R functions that require table arguments to automatically generate SQL queries, significantly reducing coding time.

Socially Determined Inc - Washington, DC

Business Intelligence Engineer

05.2018 - 10.2019

- Interface with clients to identify financial opportunity in their customer utilization.
- Provide rapid turnaround Power BI dashboards with customer demographics and revenue.
- Provide end-to-end solutions using Python, R, and SQL to clean, and search for financial opportunity patterns in the data.
- Wrangle and integrate disparate data sources: Census, healthcare claims, clinical, private 3rd-party, and surveys.
- Created over 20 Power BI dashboards to demonstrate over \$900M ROI of social determinant of health intervention.

Skills & Competencies

Technical Skills

Python - 2 years; Full Stack Engineering, Flask, MVC, ETL programming, Big Data Analytics, PySpark, Machine Learning, NLP
SQL - 3 years; PostGreSQL, AWS RDS (Aurora), Data Warehousing, Data Wrangling (parsing, normalization, Joins, Window Functions)

Soft Skills

Communication - Tackling silos to translate objectives into technical requirements, with a focus on understanding the problem.
Analytical Rigor - I seek critique and question my assumptions, leaving no rock unturned--trust but verify, especially with data!