**ESTHER LOWE**

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**SUMMARY**

Data Scientist with a background in data analysis, finance, programming (full stack development), and statistical analysis. Experienced in Procurement & Human Resources. Excellent written and verbal communication skills. Proven capabilities multitasking, project planning, organizing, and training teams. Quick to adapt and learn on the job.

**EDUCATION**

**Northwestern University School of Professional Studies**, Chicago, IL, Data Science Bootcamp Certification

**Colorado College**, Colorado Springs, CO, Bachelor of Arts & Minor in Applied Mathematics

**Gale Academy**, Statistics Certification

**TECHNICAL SKILLS**

**Programming Techniques & Languages:** Python, VBA, PostgreSQL, JavaScript, HTML, CSS

**Data Manipulation & Visualization:** ETL methods with APIs, Pandas, MatPlotLib, Gmaps, JSON conversion, Tableau*,* Leaflet, D3.js, & Beautiful Soup. Full stack web development with Flask, Node.js, Bootstrap, & AJAX

**Databases:** MongoDb (of the MERN stack), big data in the cloud, large .csv files, and databases from the Census Bureau, Google, Kaggle, Open Weather Map, MaxMind GeoLite, Kickstart, New York Times, IMDb, & Harvard Dataverse

**Other tools:** Command Line, schema design, Visual Studio Code, Data Modeling & Analysis with Microsoft Excel, RStudio, Sage, Wolfram Alpha Mathematica, Microsoft Word for technical writing

**Machine Learning:** Tensorflow, Scikit Learn, Neural Networks, KNN, Logistic Regression, Linear Regression, Decision Trees, Random Forest

**WORK EXPERIENCE**

**Consultant, Human Resources Data Analyst, Upwork, Remote** 7/19-8/19

Transformed large Excel files using Python modules and performed statistical analysis to find and report correlations in 13 employee satisfaction survey files for thousands of employees based on managerial behaviors, generation, gender, tenure, position, ethnicity, and department.

**Shift Manager, Walgreens & Pharmacy Technician, Skokie, IL.** 12/18-5/19

Managed multiple shifts at a Walgreens store. Managed staff of six front end employees while supporting pharmacy staff, inventory control, computer and network troubleshooting and repair, and customer relations. Conducted employee training. Certified Pharmacy Technician with HIPPA compliance.

**Homeschool Teacher & Tutor, Sustainable Community, Boulder & Manitou Springs, Colorado.**  5/13-11/18

Taught primary and secondary school subjects, including mathematics, agriculture, and science classes for home-schooled students. Prepared teaching materials and homework assignments, met with parents and other faculty. Kept records and created classroom project and field trips. Planned and created student gardens on a five-acre property to teach sustainable living and agriculture.

**PROJECTS**

Projects include MERN stack apps, Big Data analysis employing API calls, web scraping, and loading over 5 million rows of data from multiple large .csv files, creating and querying SQL databases, data transformation with JavaScript & Python, statistical analysis, presentations, websites, & designing UI for apps. Writing reports with Tableau, geo-mapping, D3 & Plotly.js graphics. Creating pivot tables & VBA excel programs for data manipulation.

**October 2019 – Machine Learning Preschool Anxiety Diagnostic Modeling**

Used Scikit Learn and Tensor Flow to create logistic regression, neural network, decision tree, KNN, and SVM models. Presented findings and statistics on a Tableau story.

**October 2019 – Tableau Citi Bike Program Analysis**

Created charts, graphs, and dashboards analyzing data from the Citi Bike Program website for January 2019.

**September 2019 – United Airlines Data Analysis Server Collaboration**

Created an app from scratch that performs web scraping and displays United Airlines US hub data on Leaflet maps with Plotly charts of statistics to help viewers make educated decisions about which united hubs to fly through.

**August 2019 - Belly Button Bacteria Full Stack Web Application**

Created a full stack app dashboard with HTML, JavaScript, CSS, Python, AJAX, and Flask using Sqlite files. Used Plotly.js to build interactive charts for the dashboard. Created alternative routes to display the sample metadata.

**August 2019 – UFOs Webpage Project**

Created a basic HTML web page with JS and AJAX to dynamically display and update a table based on user filter inputs. Used JavaScript D3 table modifications and visualizations. Styled the webpage with raw CSS and Bootstrap.

**August 2019 - Youth Risk Behavior ETL SQL Database Project**

Used data from the CDC on risk behaviors of K - 12 students. Created a SQL database in PGAdmin4 by transforming data with Python: Selected 15 of 35 columns and roughly 600,000 rows. Created uniform column headers for foreign key establishment.

**August 2019 - Mission to Mars Webpage & Non-Relational Mongo Database Project**

Built a Python web application with Beautiful Soup, Pandas, and Requests/Splinter to scrape and compile mission to mars 2020 news. Created a Mongo based Flask app that updates the database when a user initiates a scrape and then serves the news, updating the client.

**June 2019 - Open Weather Map Analysis & Website Visualization Project**

Generated API calls to gather weather data from over 8000 random cities around the world. Used Python modules, Pandas and MatPlotLib, as well as converted the API JSON requests, to clean data. Made scatter plots of results and a heat map to visualize the city locations. Provided an analytical report, proposal, and deployed a dashboard.

**July 2019 - HI Surfing Weather SQL Project**

Used database queries, Pandas, Matplotlib and SQLAlchemy to perform climate analysis. Connected to a Sqlite database in a Jupyter Notebook using SQLAlchemy. Designed queries to determine most active weather stations, retrieved data over several time periods, ordered data, and displayed findings graphically.

**July 2019 - PgAdmin4 Employee SQL Project**

Used data modeling to create a database schema for six csv files. Specified data types, primary keys, foreign keys, and constraints. Engineered the data according to the schema, creating a SQL database in PgAdmin4. Performed data analysis by running queries to list specific information about employees, management, and company history.

**July 2019 - Chicago Crime Project & Presentation**

Analyzed multiple Chicago crime datasets with as many as five million rows of data each. Coded in Python to perform statistical analysis and detect significance in observed potential trends. Presented the findings.

**June 2019 - Company Financial Analysis**

Analyzed company data to report the total number of months in the dataset, net profit & loss, average change in profit & loss over that period, greatest increase and decrease in profits (date and amount) over the entire period.

**May 2019 - Stock Market Analysis**

Analyzed almost 1 GB of stock ticker data from 2014 – 2016 for stock market analysis. Coded in VBA to create the program best suited to analyze the data within Excel. Used conditional formatting for data visualization, created new columns of analysis with size and text formatting for readability and ease of presentation.

**May 2019 - Kickstarter Business Analysis**

Analyzed over 4000 startup businesses to determine factors contributing to success. Using Excel, set conditional formatting to make trends in data more apparent, created pivot tables, converted timestamps, computed new columns of financial analysis, created graphs, and presented analysis. The project provided educated business consultation regarding the success of developing a startup company.