Maxwell Patterson

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SUMMARY

Data Science and Data Visualization professional with a background as an IT Consultant and seeking a full-time data scientist position. Earned a certificate in Data Science from Northwestern University and have 3+ years of professional experience in data analysis. Educational background includes a B.S. in mathematics and physics from Dickinson College, and my coursework included calculus, statistics, and analytics. Experienced in Python, SQL, NoSQL, and JavaScript to create full-stack applications. My technical skills, combined with my experience in collaborative, deadline-driven environments, make me a strong addition to any data analysis team.

TECHNICAL SKILLS

- **Programming**: Python (pandas, Matplotlib, NumPy, Flask, scikit-learn, PySpark), SQL (SQL Server, PostgreSQL), JavaScript (plotly, D3, Leaflet), R
- **Tools**: Machine Learning (linear regression, logistic regression, decision trees, random forest, k-nearest neighbors), Tableau, HTML5, CSS3, Jupyter Notebooks, Microsoft Office, Microsoft Visio, Microsoft Visual Studio, Git, SQL Server Management Studio, REST APIs

PROFESSIONAL EXPERIENCE

NIELSEN — Chicago, IL
Analytical Framework Consultant — August 2019 - Present

- Research items within databases that contain product information for manufacturers for two different clients. Provide recommendations to clean value names, adjust database structure, and remove outdated items, resulting in improved user experience. Present key findings to client and project manager within the timeline outlined in the project plan.
- Use Python to prototype tools that are built upon machine learning models in order to automate manual processes during database analysis. The data scientists in the department have requested to test business cases with these tools as a result.

REVENUE SOLUTIONS, INC. — Chicago, IL
IT Consultant — December 2017 - August 2019
Analytical Framework Consultant — September 2016 - December 2017

- Received company award for excellence in communication with the client.
- Used SQL Server to provide Production support for web applications that improve tax processing efficiency for three separate state, city, and county government agencies, resulting in increased revenue. Also coached client teams on how to fix minor database errors.
- Designed software requirements specifications (SRS) for multiple custom interfaces involving ETL, providing access to more external data for clients.

PROJECTS

RIDESHARE PRICE PREDICTOR
Github Link: https://github.com/atomazos/machine_learning-ridesharing_data
Link to Deployed Project: https://chi-ride.herokuapp.com/

- An app that uses an SGD Regression machine learning model to predict rideshare fares in Chicago, IL.
- Using public rideshare data made available by the City of Chicago, I made the SGD Regression model based off of pickup location, dropoff location, weather, and time of day.
- The machine learning model was created in Python, the visualizations were made using D3.js, and the app was deployed to Heroku.

CHICAGO BUILDING ENERGY EFFICIENCY
Github Link: https://github.com/mmpatterson/chicago-buildings
Link to Deployed Project: https://mmpatterson.github.io/chicago-buildings/index.html

- A site that analyzes the energy efficiency of large buildings in Chicago, IL based on the age, location, and size of the buildings.
- Using public data, two map visualizations made: one plots buildings by age and the other plots buildings by energy efficiency.
- The maps were created using Leaflet.js, and the API supplying the data was provided by the City of Chicago

WORLDWIDE EARTHQUAKE TRACKER
Github Link: hhttps://github.com/mmpatterson/leaflet-earthquake-tracker
Link to Deployed Project: https://mmpatterson.github.io/leaflet-earthquake-tracker/earthquake-tracker/

- A site that displays information for earthquakes that have occurred within the last 7 days
- Using public data, plotted the location of each earthquake on a Leaflet map and scaled its size based on the severity of the event
- The map was created using Leaflet.js, and the API providing the data was made available by the United States Geological Survey

EDUCATION

NORTHWESTERN UNIVERSITY
Certificate, Data Science Boot Camp — August 2019 - February 2020

DICKINSON COLLEGE
Bachelor of Science, Mathematics and Physics — August 2012 - May 2016