

## **Erika Walker**

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GitHub: <https://github.com/Shoggato/> | Website: <https://erikawal.pythonanywhere.com/>

Clinical Laboratory Scientist with 10+ years working in healthcare. Pivoting to a data driven career (LinkedIn: [www.linkedin.com/in/erika-emery-walker](https://www.linkedin.com/in/erika-emery-walker)). Recently completed a Data Analytics professional development program at Washington University. Proficient at Python, SQL, and other tools to collect, clean, analyze, and visualize data from various sources.

### **Technical Skills:**

**Tools:** Excel, Python, Jupyter Notebooks, Flask

**Databases/Libraries:** APIs, PostgreSQL, SQLAlchemy, SQLite, MongoDB, Sci-kit learn, TensorFlow, Pandas, NumPy, SciPy, Matplotlib, Seaborn, Pyspark

### **Related Experience:**

#### **Washington University Data Analytics and Visualization Program:**

Deep Learning with Alphabet Soup Charities | <https://github.com/Shoggato/NeuralHarmony> |

- Developed a deep learning model using Python, TensorFlow, and Sci-kit Learn to predict the success of future ventures for Alphabet Soup Charities.
- Utilized a VM Ubuntu TensorFlow GPU acceleration to speed up my KerasTuner model to find the best model for the features selected. The final model was okay with an accuracy of 72.16%, however, there is definitely more room for improvement.
- Tools/Languages: Python, Pandas, Numpy, TensorFlow, Sci-kit Learn, Jupyter Notebook

Dynamic Map COVID-19 | <https://github.com/Shoggato/ChronoMap-USA> |

- Utilizes Flask to create dynamic calls to a javascripted map of the USA that shows Covid infection/deaths/confirmed infected for each state and territory of the US.
- Project successfully created a dynamic map where a user could select between a range of dates 2020-03-01 to 2021-03-01. There were also additional tabs for Infection rate/ Confirmed Covid Deaths/ and Confirmed Covid Infection. My responsibilities were maintaining the Flask app, Javascript, HTML, CSS for the project.
- Tools/Languages: D3, Javascript, sqlite3, json, Leaflet, GeoJson, Bootstrap, Python, Pandas, Javascript, HTML, CSS

NeuroCast: Forecasting Precipitation with AI Insight | <https://github.com/Shoggato/NeuroCast> |

- Exploring weather data to predict if it's possible to predict with >90% certainty whether it will rain or not.
- Proof of concept that Deep Neural Networks can predict future weather patterns. The neural network was successful.
- Tools/Languages: Python, Pandas, numpy, TensorFlow, KerasTuner

Washington State Lottery | <https://github.com/Shoggato/LottoInsight> |

- Exploratory data research into WA state Powerball data from kaggle
- Goals for this project were to determine the frequency of powerball/power play numbers on both days/months/years from selected data. Main responsibilities were to clean and process the data, perform discrete data analysis, and create visualizations of data.
- Tools/Languages: Python, Pandas, Jupyter Notebook.

**Additional Experience:****BARNES JEWISH HOSPITAL**

2013 - Jun 2023 · 10 yrs 6 mos

Medical Laboratory Scientist II

Saint Louis, Missouri

Senior Staff Hematologist:

- Collected, reviewed, and reported patient testing results to Clinicians.
- Conducted comprehensive analyses of blood samples, specializing in hematological disorders.
- Ensured accuracy and precision in laboratory procedures, maintaining the highest standards of quality control.
- Collaborated with healthcare professionals to interpret test results and provide valuable insights for patient care.
- Actively participated in continuing education programs to stay abreast of the latest advancements in hematological sciences.

Senior Staff Flow Cytometrist:

- Processed patient samples using advanced flow cytometry techniques.
- Conducted detailed analyses of patient samples, specializing in immunophenotyping and cell sorting.
- Prepared and presented comprehensive reports detailing the findings of flow cytometric analyses.
- Collaborated with Pathologists to ensure accurate diagnosis and interpretation of patient conditions.
- Played a pivotal role in maintaining and troubleshooting flow cytometry instrumentation.
- Actively engaged in the training and mentoring of junior staff members, contributing to the overall enhancement of laboratory capabilities.

**Education:**

- Washington University, Saint Louis  
July 2023 - Nov 2023  
Data Analytics professional development program
- University of Missouri, Columbia  
2012 - May 2013  
Cum Laude Bachelor of Science, Clinical Laboratory Science/Medical Technology/Technologist
- University of Missouri, Columbia  
2011  
Bachelor of Science, Biology/Biological Sciences