

Julia Marie Guzy

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Professional Experience

Research Assistant; Harvard University

February 2020 – December 2023

Molecular Biology and Pharmacology Lab

Boston, MA

- Applied data visualization techniques and statistical models, such as linear and polynomial regression, to interpret experimental results and identify trends
- Performed data quality control and analysis on DNA and RNA sequencing data
- Collected, processed, and analyzed biological samples using a variety of techniques to generate reliable data
- Prepared and presented scientific data to a wide range of audiences, ranging from fellow scientists and engineers to the general public

Research Assistant; Michigan State University

November 2018 – December 2019

Quantitative Health Science and Engineering Lab

East Lansing, MI

- Cleaned, organized, and interpreted medical imaging data by using Excel and 3D imaging software
- Participated in the design and execution of biomedical engineering experiments, collecting and evaluating data to support the development of novel nanoparticles
- Maintained detailed documentation of image analysis methods, parameters, and outcomes
- Wrote a first-author scientific paper that was published in the American Chemical Society's Journal of Applied Nano Materials

Education

Harvard Division of Continuing Education

August 2020 – May 2023

Relevant Professional Development Courses Completed:

Cambridge, MA

- Artificial Intelligence with Python
- Data Science: R Basics

B.S., Biosystems Engineering; Michigan State University

August 2016 – December 2019

University Honors College Member

East Lansing, MI

Skills and Certifications

- **Programming:** Python (Pandas, Numpy, Matplotlib), SQL, SAS, R, HTML
- **Platforms and Tools:** Git, Tableau, Excel, Power BI, BigQuery, Markdown, Jupyter Notebooks
- **Certificates:** Google Data Analytics Certificate, AWS Fundamentals Certificate, Google Advanced Data Analytics Professional Certificate
- Organized, adaptable, detail oriented, excellent problem solving and communication skills

Recent Projects

Personal Portfolio at <https://julmg23.github.io>

Nearest Asteroid Tracker (*Python, Jupyter Notebook, Pandas, API*)

- Created a Jupyter notebook that finds the nearest asteroid to earth in real time
- Utilized python to pull daily requests from NASA's Near-Earth Object API
- Programmed a script to streamline the entire data processing pipeline, which automatically cleans the data, imports it to a Pandas dataframe, and outputs a detailed graphic using Matplotlib

Health Care Costs Dashboard (*SQL, MYSQL, Power BI*)

- Analyzed a health care cost data set to identify key relationships between costs, demographics, and region
- Imported the dataset to MYSQL, transformed and validated the data, exported final data to Power BI and then created an interactive dashboard