

Master's graduate with 5+ years of experience in data analysis eager to apply the problem-solving, data visualization, and technical communication skills gained from scientific research to draw actionable insights from data and communicate complex ideas.

Skills

- SQL (MySQL, Microsoft SQL Server)
- Python (Pandas, NumPy, SciPy, Matplotlib)
- Tableau
- Microsoft Excel (Conditional Formatting, Pivot Tables)
- MATLAB
- Java
- R
- Microsoft Office

Work Experience

GRADUATE RESEARCHER – Northwestern University Department of Materials Science and Engineering – Evanston, IL Sep 2018 - Dec 2022

- Developed a data pipeline to format, clean, and visualize optical spectral data
- Performed statistical analysis to understand patterns and trends in plasmon population dynamics
- Designed experiments to collect optical spectral data and verify their integrity, accuracy, and consistency
- Performed ad-hoc simulations to optimize optical structures using bash scripts to automate parameter sweeps yielding actionable insights into improving device design
- Communicated data-driven insights to collaborators via weekly reporting in the form of dashboards and visualizations through a cross-functional multi-university collaboration
- Maintained and repaired optical measurement setups, including training new students
- Exhibited excellent communication skills when writing a research proposal for stakeholders, was awarded the National Defense Science and Engineering Graduate Fellowship
- Coordinated the purchase of \$140,000 of optical equipment and negotiated to obtain a 10% discount
- Led a team of six researchers in the successful installation of complex optical equipment

UNDERGRADUATE RESEARCH DATA ANALYST – Oberlin College Department of Physics and Astronomy – Oberlin, OH 2015

- Developed Python code to transform and clean radio wave data from pulsars in collaboration with other student researchers
- Produced figures of dynamic and secondary spectra displaying the scintillation arc effect resulting in a publication

Projects

ALTERNATIVE FUEL STATIONS ANALYSIS – Personal Project – Evanston, IL May 2023

- Utilized SQL to perform data cleaning and exploratory data analysis on a data set on alternative fueling stations in the U.S.

Education

NORTHWESTERN UNIVERSITY – Evanston, IL Dec 2022

Masters of Science in Materials Science and Engineering, GPA: 3.95

Relevant Coursework: Computational Materials Science

OBERLIN COLLEGE – Oberlin, OH May 2018

Bachelor's of Arts in Physics and Astronomy, Highest Honors

Relevant Coursework: Data Structures, Algorithms, Discrete Mathematics

Volunteering

CODING CLUB MENTOR – Pedersen-McCormick Boys and Girls Club – Chicago, IL

Sep 2019 - Present

- Designed lessons and tutored high school students in programming with Python Jupyter notebooks
- Communicated computer science concepts to students with varying backgrounds and levels of coding experience