Daniel Herfurth

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Professional Summary

Critical thinker with a background in chemistry R&D and data analysis, with strong Python experience in a wide range of applications. Team player looking for opportunities working with data or software in a dynamic environment appreciative of outside-the-box thinking.

Experience

ACM Chemistries
04/2019 - 04/2021

R&D Laboratory Specialist

- Formulated and optimized unique chemical compositions for introduction to market.
- Developed and implemented QC SOPs for newly invented products.
- Drafted safety data sheets for manufactured products and maintained current SOPs for all equipment.
- Generated and disseminated R&D progress reports to upper management.
- Found and fixed issues with current formulations that caused decreased performance.
- Automated lab tasks and data analysis with Python and VBA.

Undergraduate Research, Msimanga Laboratory
04/2017 - 09/2018

Quantitative analysis and characterization of gunshot residue using cyclic voltammetry (CV) in an ionic-liquid support electrolyte.

- Use of CV to characterize the electrochemical properties of various ionic liquids to determine the ideal liquid to use as a support electrolyte.
- Use of IR spectroscopy to validate electrochemical findings of organic components of gunshot residue.
- Statistical analysis of voltammograms to verify method validity and correct for method interference.

Undergraduate Research, Tapu Lab
01/2018 - 09/2018

My role in the lab was to perform a variety of tasks, all aimed at reducing extraneous work so that the graduate students could focus exclusively on their area of organometallic research.

- Synthesized a variety small-molecule precursors.
- Performed ^{1}H and ^{13}C NMR, UV-VIS, and IR analysis of synthesized compounds.
- Purified synthesized compounds using column chromatography.

Skills

- Python, R
- VBA, Microsoft Office
- SQL, PostgreSQL
- HTML, JavaScript

- Tableau
- Data analysis and visualization
- Automation
- Method development and optimization

Education

Kennesaw State University
Class of December 2018

Bachelor of Science: Chemistry

Georgia Institute of Technology
09/2021 - 03/2022

Data Science Boot Camp