

Mason Smith

CHEMICAL PROFESSIONAL · ANALYTICAL OPERATIONS SPECIALIST

Ashburn, VA, USA - Available for relocation

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Summary

Versatile and experienced Chemical Professional with a B.S. in Chemistry and extensive hands-on experience with numerous analytical instruments, deep understanding of standard operating procedure (SOP) development and adherence. Proven expertise executing complex metallurgical recovery. Formally cross-trained across numerous platforms including routine operation of GC-MS and HPLC alongside foundational training on ICP-OES and years of NMR spectroscopy operational experience during University studies. Demonstrates exceptional technical aptitude for rapid onboarding, characterization, and quantification of diverse chemical entities.

Analytical Instrumentation: GC-MS, HPLC, LC-MS, ICP-OES (Formally Trained).

Laboratory & Chemical Operations: Chemical apparatus configuration, chemical synthesis, metallurgical recovery, SOP development.

Data & Software Systems: Technical Report Writing, Python, R Programming, HTML, Microsoft Office Suite.

Work Experience

Independent Chemical Research Scientist and Consultant

Gainesville, FL | Ashburn, VA

SYNTHETIKA INC * DISTRICT DENTAL SCRAP

Dec. 2024 - Present

- Independently developed and optimized a chemical process which recycles and refines gold and palladium from valuable dental alloys.
- Drafted comprehensive SOPs for the synthesis of novel, non-pharmaceutical monomers for nutritional supplement development.

Applications Microbiologist & Analytical Laboratory Technical Liason

Lebanon, NH

MASCOMA LLC & LALLEMAND BIOFUELS & DISTILLED SPIRITS (LBDS)

Oct. 2021 - Dec. 2024

- Served as the Group Manager of LBDS Applications Laboratory responsible for ensuring the team's punctual execution of quantitative and qualitative chemical assays, fermentation performance assessments, and routine instrumental analysis of received customer samples.
- Uniquely selected to serve as the dedicated representative liason of LBDS to Mascoma's Analytical Laboratory to seamlessly coordinate with and physically assist the instrument technicians in all LBDS diagnostic and analytic workflows.
- Routinely processed and analyzed high-volume sample sets of HPLC, GC-MS, MALDI-TOF and completed training to operate the facility's brand new ICP-OES.
- Compiled raw experimental and instrumental data into comprehensive technical reports to guide plant technicians with key process recommendations and adjustments ensuring smooth operation of over 40 large scale biofuel production facilities.

Molecular Biology Research Intern

Lebanon, NH

MASCOMA LLC

Jun. 2021 - Oct. 2021

- Conducted cutting-edge molecular biology research in genetic engineering of novel commercial yeast strains under expert supervision.
- Utilized and operated sophisticated analytical instrumentation eventually being formally trained to operate the GC-MS without supervision for analysis requiring headspace or SPME-fiber sample injection.
- Successfully isolated, purified, and amplified genomic DNA and oligonucleotides via PCR and successfully executed targeted gene insertion, deletion, and replacement strategies using site-directed mutagenesis and endonuclease-mediated genome editing.

Bioorganic Chemistry Research Assistant

Harrisonburg, VA

JAMES MADISON UNIVERSITY

Jan. 2016 - May 2017

- Conducted research focused on the novel synthesis of custom oligonucleotide analogues.
- Developed an asymmetric synthesis methodology that optimized experimental throughput while maintaining minimal chemical waste.

Education

James Madison University

Harrisonburg, VA

BACHELOR OF SCIENCE — CHEMISTRY

Oct. 2015 - May 2019

- Awarded the JMU Presidential Chemistry Scholarship and received a full year of tuition and fees for academic excellence.

Additional Experience & Capabilities

FAA Certificated Private Pilot & Remote Pilot

United States

CERTIFICATE No. 4276992 & 4493687

Nov 2019 - Present

- Instrument Rated Private Pilot with over 200 hours of flight time, including cross-country and night flying experience.