NAM BUI

LOS ANGELES, CA 90012 • (612)860-5784 • NAM.BUI17@ICLOUD.COM
WWW.LINKEDIN.COM/IN/NAM-BUI-8887B8131

PROFESSIONAL SUMMARY

Experienced Chemical Engineer and Automation Engineer with expertise in analytical method development, automation in regulated environments, and chemical formulation development. Skilled in optimizing formulations, statistical design of experiments, and method validation. Proficient in analytical instrumentation and chemical reaction modeling. Passionate about contributing to life sciences and healthcare through innovative chemistry solutions.

EDUCATION

UNIVERSITY OF MINNESOTA: TWIN CITIES – BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING – 2015-2019

EXPERIENCE

R&D AUTOMATION ENGINEER, STERIS, PLYMOUTH, MN – 2023-PRESENT

- Developed automated testing frameworks using Python and integrated them with Azure DevOps CI/CD pipelines to validate software requirements and accelerate deployment cycles.
- Implemented Jama for requirements traceability and test case management, improving test coverage and compliance documentation.
- Developed and released pipelines as part of continuous improvement to generate release notes to better make use of time.
- Built and maintained automated testing frameworks for validating scientific software and engineering tools.
- Worked in an Agile development environment, collaborating with remote teams to enhance software quality and reliability.

R&D FORMULATION CHEMIST I, ASSOCIATE SCIENTIST II, ASSOCIATE SCIENTIST, STERIS, PLYMOUTH, MN – 2019-2023

- Developed and optimized chemical formulations for medical device sterilization, ensuring product performance and stability, and reducing chemical consumption by 50%.
- Conducted laboratory testing of raw materials, in-process batches, and finished products to maintain high-quality standards.
- Developed novel formulations that improved raw material compatibility and reduced production costs, leading to patent filings.
- Operated and maintained analytical instruments such as GC-MS, HPLC, ICP-MS, TOC, and AAS, to assess material properties.

- Designed and executed test protocols to verify washer-disinfect or cleaning efficacy in compliance with ISO 15883 standards, ensuring regulatory adherence.
- Mentored junior chemists on analytical techniques and procedures as well as training technicians and other departments on quality control assays.
- Conducted statistical Design of Experiments (DoE) for method development and method validation, implemented critical analytical assays to ensure quality control.

TECHNICAL SKILLS

Chemical Synthesis & Formulation: Formulation optimization, chemical reaction kinetics, reaction scaling (lab to manufacturing.

Analytical Instrumentation: HPLC, GC-MS, ICP-MS, TOC, AAS, UV-Vis Spectroscopy, FTIR

Process Development & Scale-Up: Process modeling, pilot-scale synthesis, manufacturing support, SOP development, reaction monitoring

Regulatory & Quality Compliance: ISO 15883, test method validation, compliance documentation, traceability systems.

Software & Scripting: Python (for automation and modeling), MATLAB, Azure DevOps, Git

PROJECTS

Automated Software Test Framework - Python:

- Designed and implemented automated testing frameworks using Python, integrating with Jama to validate software requirements, ensuring traceability, compliance, and test coverage in a regulated environment.

Chemical Reaction Kinetics Formulation Automation - Python:

- Researched the chemical kinetics of Peracetic Acid and utilized the results to develop a predictive model of reaction results in Python, leading to multiple products being developed and patent applications.

ISO 15883 Testing:

- Performed laboratory soil testing on washer-disinfectors to validate their cleaning efficacy claims in accordance with ISO 15883. This testing was conducted to ensure regulatory compliance and the product's effectiveness.

LANGUAGES

English: Native speaker, fluent

French: C1-C2 proficiency

Vietnamese: Intermediate to Advanced Proficiency

CERTIFICATIONS

Full Stack Web Development Certificate: University of Minnesota college of Continuing and Professional Studies (2023) - Expires: N/A

Swift 5 Essential Training: LinkedIn Learning (2023) - Expires: N/A