Ian Hunter Wiatric

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914–327–1442 | Huntsville, AL

Professional Experience

Materials & Process Engineer I October 2024 – February 2025
Blue Origin Huntsville, AL

- Created data pipeline to continuously assess process stability and capability via control charts.
- Assessed material compatibility risks to prevent $20,000 in chemical waste and 100s of part NCs.
- Audited cleanrooms per ISO 14644 and performed corrective action on environmental sensors.
- Improved surface treatment throughput by performing statistical process control (SPC).
- Developed nickel superalloy etchant to balance production bottlenecking with safety hazards.
- Streamlined workorder documentation to reduce touch time and nonconformances (NC).

Drug Delivery R&D Co-op January 2023 – August 2023
GenerationBio Cambridge, MA

- Created a novel fluorimetry assay to predict LNP stability, enabling a thousandfold cost reduction.
- Analyzed lipid nanoparticle (LNP) properties using high throughput screening assays.
- Formulated pharmaceuticals at benchtop scale using experimental nucleic acids.
- Excelled in a fast-paced startup environment by presenting findings at company all-hands meeting.

Chemistry & Materials Science Co-op January 2022 – August 2022
Draper Laboratory Cambridge, MA

- Optimized fuel cell geometry & radiation shielding using multifactorial excel analysis.
- Refurbished an atmospheric control system for handling hazardous materials.
- Characterized wafers and coatings using Raman, SEM, and EDX in ISO 6 cleanroom.
- Executed ASTM-compliant thermomechanical testing on high-reliability aerospace elastomers.
- Applied ATR-FTIR to solve emergent production issue in aerospace manufacturing.
- Performed RCA on MEMs silicon eutectic failure using dynamic mechanical analysis (DMA).

Battery Engineering Co-op January 2021 – June 2021
Cuberg Emeryville, CA

- Achieved industry record by collaborating with R&D team: 512 cycles for a 5 Ah Li-metal battery.
- Gained 500+ hours handling exotic materials inside controlled atmosphere glove boxes.
- Programmed image analysis tool to screen fluid wetting properties and train ML model.
- Assembled hundreds of test cells for multivariate process development and equipment validation.

Education

B.S. in Chemical Engineering and Biochemistry September 2019 – May 2024
Northeastern University Boston, MA

- Distinctions: 3.75 GPA, Dean's Merit Scholarship, passed FE Exam with EIT pending
- Academic Groups: Science the World, ChemE Car, AiChE

Skills

- Control Theory
- Safety Analysis
- Aspen
- Simulink
- Python
- SuperPro
- P&ID
- PLM software
- C++

Projects

- Theoretical control design for dynamic water purification by reverse osmosis.
- Continuous synthesis and separation of phthalic anhydride at pilot scale.