

Sierra Flores

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Biological Engineer with 5+ years of experience in startup operations, project and data management, and biotech research. Proven success in implementing systems that scaled operations by 10x and streamlined cross-functional collaboration.

AREAS OF EXPERTISE

Project & Operations Management

Agile, Lean, and Six Sigma | Project Planning | Stakeholder Communication | KPI Tracking | Technical Documentation

Data Science & Automation

Python (Pandas, SciKit Learn, etc.) | SQL | APIs | Flask | Advanced Excel and Google Sheets | Tableau | Basic AWS

Lab & Instrumentation

Electronic Lab Notebooks (ELN) | Lab Information Management Systems (LIMS) | SolidWorks/CAD | Lab Management Quality Control (GLP, GMP, ISO) | Assay Development | PCR and qPCR | Lab Automation (Tecan, Opentrons, Agilent)

PROFESSIONAL EXPERIENCE

Sound Agriculture (Startup)

Process Engineer I | July 2022 – April 2024

Remote

- Designed and implemented a Smartsheet- and Asana-based project management system, enabling a 10x scale up of research operations from 4 to 40+ concurrent experiments without incurring new software costs.
- Created automated Google Sheets templates to standardize data collection across 250+ experiments, allowing for meta-analysis of data across experiments to guide research strategy and avoid wasteful experiments.
- Led the Agile-based implementation of a new ELN/LIMS, writing a 200+ page user manual and providing 50+ hours of training to transition 30+ cross-functional staff to a data tracking system compliant with investor expectations.
- Developed custom dashboards to track and report 10 KPIs, enabling staff, leadership, and board members to easily monitor research operations trends over 20 months.

Research Associate I | June 2021 – July 2022

Emeryville, CA

- Led efforts to track and analyze RNA quantification data across experiments, improving sample preparation and reducing sample loss by up to 75% across 10+ sample types for Sound's molecular screening pipeline.
- Designed and executed experiments within budget to alter trait expression in 7+ crop types, collaborating with Sound's internal research team and 3+ external partners to support genetic research and product development.
- Proactively identified operational inefficiencies and presented a strategic plan to streamline operations, prompting Research management to create the company's first and only Process Engineer role.

Quansys Biosciences

Research and Development Technician | February 2019 – May 2021

Logan, UT

- Supported the setup and use of a CLIA Clinical Lab, obtaining an FDA Emergency Use Authorization (EUA), and developing a COVID-19 antibody assay, contributing to the company's rapid response during the pandemic.
- Led compliance initiatives, including implementing and training staff on a new Quality Management System (QMS), to ensure compliance with GLP, GMP, ISO 13485, and ISO 9001, achieving 2 successful company audits.
- Managed the development of 12+ multiplexed Enzyme-Linked Immunosorbent Assays (ELISAs) for 6+ customers, validating performance of up to 13 biomarkers per assay against internal QC standards and customer requirements.

EDUCATION, LICENSURE, & CERTIFICATIONS

Utah State University

May 2021

B.S. Biological Engineering, Entrepreneurship Minor

Logan, UT

- Undergraduate Research Fellow; graduated summa cum laude with Honors

Fundamentals of Engineering Exam, Other Disciplines

September 2020

Engineer in Training (EIT) License

Project Management Certifications

October 2024

Lean Yellow Belt and Six Sigma White Belt; PMI CAPM Certification in progress