

# Sierra Flores

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## PROFESSIONAL EXPERIENCE

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### Sound Agriculture

June 2021 – April 2024

Process Engineer I | July 2022 – April 2024

Remote

- Led the scale-up of research operations from 5 to 40+ concurrent experiments by working with Research leadership to monitor workflow capacity, identify process inefficiencies, and optimize team member contributions.
- Enhanced communication and project status tracking by designing and implementing a Smartsheet- and Asana-based project management system.
- Standardized experiment data collection across 250+ experiments by creating Google Sheets templates and, later, customizing and onboarding a new Electronic Lab Notebook and Lab Information Management System.
- Onboarded 30+ current and new Research employees to new project and data management systems, including creating onboarding presentations and writing technical documents to standardize department operations.
- Worked fully remotely to standardize and enhance Sound's Research operations, including soil adjuvant development and crop epigenetic modification.

Research Associate I | June 2021 – July 2022

Emeryville, CA

- Altered trait expression in 7+ crop types by designing and executing experiments independently, with Sound's internal research team, and with 3+ external partners.
- Reduced RNA sample loss by up to 75% across 10+ sample types by improving sample preparation for Sound's molecular screening pipeline, including rewriting Sound's RNA Quantification protocol and working with the lab automation team to improve Tecan Fluent performance.
- Presented experiment results to all company departments, company leadership, and external partners.
- Helped to create a collection of 30+ unique Arabidopsis mutants by breeding, extracting DNA from, and genotyping thousands of plants.

### Quansys Biosciences

February 2019 – May 2021

Research and Development Technician

Logan, UT

- Developed 12+ multiplexed Enzyme-Linked Immunosorbent Assays (ELISAs) for 6+ customers.
- Validated performance of up to 13 biomarkers per assay against internal QC standards and customer requirements.
- Achieved 2 successful company audits within 2 years by helping implement and train staff on a new Quality Management System for SOP version control, ensuring compliance with ISO 13485 and ISO 9001 standards.

## EDUCATION & LICENSURE

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### 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

## SKILLS & INTERESTS

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### Project Management and Collaboration

Smartsheet | Asana | LucidChart | Sharepoint | Technical Documentation | Agile Methodology | Google Workspace | MS Office/Teams

### Data Science and Scripting

**Python:** Pandas | NumPy | Matplotlib | SciPy | Plotly | Scikit Learn | Seaborn | APIs | Flask | Beautiful Soup | Selenium | SQLAlchemy

**Other:** Git and Github | Advanced Excel and Google Sheets | Basic AWS | Basic R | Basic SQL | Prism | JMP | Sapio ELN and LIMS

### Lab & Instrumentation

Aseptic Technique | Assay Development and QC | Bacterial Culture | DNA/RNA Extraction and Quantification  
Electronic Lab Notebooks | Enzyme-Linked Immunosorbent Assays (ELISAs) | Gel Electrophoresis | Genotyping | Lab Automation  
Lab Information Management Systems | Library Preparation | Liquid Nitrogen Handling | PCR | qPCR | SolidWorks

**Interests:** Crafting | Sourdough | Travel | Strategy Games | Survivor | Musical Theatre