

Justin Tirrell

LIMS DEVELOPER & ARCHITECT

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Professional Experience

Sera Prognostics Diagnostic Laboratory

Salt Lake City, Utah

SOFTWARE ENGINEER II

Jan. 2024 - present

- Authored, documented, and maintained code written in C#, Python, Bash, PowerShell and LIMS Basic
- Designed and implemented a process for testing laboratory web services

LIMS ADMINISTRATOR

Jan. 2023 - Dec. 2023

- Leveraged API endpoints to automate sample logging and test script generation
- Created a library of SQL queries and update statements to standardize user interactions

JUNIOR LIMS ADMINISTRATOR

May. 2021 - Dec. 2022

- Earned the LabWare LIMS Administrator certification by passing the associated examination, following completion of the LabWare I and II courses
- Critically evaluated several LIMS vendors over a 9 month period as part of the selection process for a new lims
- Collaborated with a team to implement a new instance of LabWare 8 LIMS from the ground up, leveraging the Clinical Health Template

(Lead) Sample Processing Technician

Taylorsville, Utah

UNIFIED PUBLIC HEALTH LAB-SPECIMEN RECEIVING

Jul. 2020 - May 2021

- Managed a team of 14 technicians across 3 shifts
- Used testing data to establish internal metrics for the state lab

Systems Modeller

Logan, Utah

SEEDSCAPE ECOLOGY GROUP

Jan. 2018 - Jun. 2020

- Proficient in creating both mathematical and simulation models for dynamic populations
- Presented research bi-annually at University Research Symposiums

Education

B.S. in Biology, *cum laude*, Utah State University

Logan, Utah

3.7 GPA, MINORS IN CHEMISTRY & PHILOSOPHY

May. 2020

- Awarded the USU Undergraduate Researcher Designation
- Received Departmental Honors for completing the university's research-focused Honors Program
- Developed expertise in mathematical, computational, and scientific techniques to model interactions of plant/animal populations

Skills

Top Languages

LIMS Basic: LabWare LIMS
C#: Microsoft Services
Python: Automating API calls
Postman: Testing Endpoints

Coursework

LabWare Admin I & II
Intro to CS I & II
Data Structures and Algorithms
Programming for Biologists

Rest APIs

LabWare LIMS
Azure Devops
MVC Services