

# Melanie Prettyman

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## Professional Summary

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### SUMMARY

Aspiring for a software engineer role to apply my robust technical foundation in computer science and analytical acumen, coupled with a practical understanding of software engineering. Eager to contribute to the creation of efficient and dependable software solutions while expanding my expertise in the field.

## Professional Experience

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### Dyno Nobel

February 2024 - Current

#### Front End Engineer Intern

Salt Lake City, Utah

- Developed UI components and implemented them following well-known React.js workflows.
- Coordinate with a team to work on different layers of the infrastructure in all phases of the software development lifecycle in a fast-paced agile setup
- Translate designs and wireframes into high quality code, while writing reusable, testable, and efficient code.
- Optimize components for high performance across a vast array of web-capable devices and browsers
- Work collaboratively with UI/UX Designers, Product Owners and Architects to understand end user requirements to provide technical solutions and for the implementation of new software features.
- Participate in feature grooming, provide inputs in design and perform story point estimation

### Biofire Diagnostics

February 2022 - August 2023

#### Lab Technologist II

Salt Lake City, Utah

- Led DNA, RNA, and live-organism process control production.
- Acted as a subject matter expert in Template Control processes and data analysis.
- Presented findings through slideshows, emphasizing lessons learned and process improvements.
- Managed product inventory and ensured timely departmental deliveries.
- Conducted customer engagement to identify data-driven business needs and provide data lake solutions.
- Conducted experiments, analyzed data, and collaborated with team members for project completion.
- Performed experiments, including test method validation and process validation, to support improvement projects.
- Quantified DNA and RNA samples using qPCR, ddPCR, and RT-PCR.

### Leung Lab for Infectious Disease

December 2017 - August 2019

#### Laboratory Aid

Salt Lake City, Utah

- Conducted research on different approaches to SBA, focusing on measuring lysis-released adenylate kinase as a proxy for bacterial cell lysis.
- Collaborated in the testing and validation of the luminescence-based SBA method, which directly measures continuous titer values, reducing assay time, cost, and variability.
- Played a critical role in preparing bacterial cultures and serum samples for testing, following strict laboratory protocols.
- Assisted in the analysis and interpretation of experimental data, including the comparison of traditional OD-based vibriocidal with the newly developed luminescence-based method, demonstrating increased resolution and accuracy.

## Technical Skills

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- **Programming Languages:** C++, Java, JavaScript, React
- **Test Automation:** Catch2, JEST
- **Tools & Frameworks:** Git, Jenkins, JIRA, Agile workflow

# Education

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University of Utah

Bachelor of Science in BioChemistry

December 2021

Salt Lake City, Utah

University of Utah

December 2024

Master of Engineer in Software Development

Salt Lake City, Utah