

Miranda (Maddy) Whitney

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Authorized to work in the US for any employer.

EDUCATION

Graduate Certificate in Software Engineering

University of Washington, Tacoma, WA

Expected graduation: May 2025

Bachelor of Science in Chemistry

University of Puget Sound, Tacoma, WA

SKILLS FROM EXPERIENCE

- Object Oriented programming with Python.
- Effective communication and presentation of complex data in a lay-friendly manner.
- SQLite database querying.
- Versioning with GitHub.
- Wet lab techniques.
- Analysis of complex samples using LCMS, GCMS, UV-Vis spectrophotometry, ELISA.
- Data quality validation.
- Planning, execution, and range development for new assays.
- Small animal care.

RESEARCH, PROJECTS & EMPLOYMENT HISTORY

Extractions Chemist, June 2023 – Present

Meridian Valley Lab, Tukwila, WA

- Prepare patient samples for analysis using typical organic lab techniques.
- Prepare and label reagents, keep detailed records of reagents used during procedures.
- Analyze samples using LCMS, GCMS and UV-Vis spectrophotometry.
- Conduct 96-well-plate assays: ELISA and colorimetric.
- Operate the Beckman-Coulter AU480 Chemistry Analyzer.
- Analyze and interpret raw data with Analyst software, report and troubleshoot unusual/poor data quality and discrepancies.
- Draft, update, and develop SOP's.
- Conduct range development to expand the use of an assay for more patients.
- Validate quality controls.
- Maintain laboratory equipment and ensure compliance with safety regulations.

Programming Group Project, Jan 2025 – March 2025

University of Washington-Tacoma, Tacoma, WA

- See project on GitHub: [GitHub.com/madswlh](https://github.com/madswlh)
- Used agile methodology to progress through this project.
- Tracked user stories with YouTrack.
- Drafted UML diagram to establish loose plan for structure of program.
- Regularly met with group to discuss progress, issues and plan future sprints.
- Designed working codebase in python language using VS Code and versioning with GitHub.
- Created and ran unit tests.
- Developed strong understanding of code architecture – this made optimization and debugging easier.
- Presented working project to cohort.

Undergraduate Thesis in Organic Chemistry, May 2022 – May 2023

University of Puget Sound, Tacoma, WA

- Conducted chemical reactions on the milligram and gram scale, using typical organic lab techniques.
- Characterized products using HNMR.
- Analyzed progress of reactions overtime using spectroscopic and chromatographic techniques.
- Created and adjusted procedures, and recorded results in electronic lab notebook.
- Compiled large datasets into a readable format.
- Presented my project at the ACS Conference in March 2023.

Course Assistant for Organic Chemistry 1&2, September 2021 – December 2022

University of Puget Sound, Tacoma, WA

- Assisted students with lab work, answered questions, helped them operate instruments, troubleshoot typical mistakes students would make in lab
- Graded lab assignments and quizzes

Undergraduate Researcher, June 2020 – September 2020

University of Puget Sound, Tacoma, WA

- Cared for small, captive birds: fed, watered, cleaned cages, weighed eggs.
- Calculated appropriate dosage of antibiotics for birds, based off their previous water intake and average mass.
- Observed and quantified behavioral patterns, organized data using excel and R.