

ALEX ANDERSON

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PROFILE SUMMARY

Accomplished laboratory manager and analytical chemist with over a decade of technical expertise and a proven record of building efficient teams, solving complex problems, and launching new programs. Directed R&D and environmental consulting initiatives, developed a qPCR virus detection assay generating \$3M in profit, and introduced automation systems that improved speed, efficiency, and data quality. Combines technical mastery, innovation, and leadership across scientific and operational domains.

PROFESSIONAL EXPERIENCE

Technical Manager & Head of R&D – McCampbell Analytical Inc. - Pittsburg, CA **April 2024 – October 2025**

- Directed all laboratory operations, ensuring data integrity and regulatory compliance under the 2016 TNI Standard.
- Led cross-functional R&D initiatives that accelerated project turnaround times and improved accuracy.
- Developed and automated new analytical workflows, reducing manual labor by over 40%.
- Mentored staff and restructured roles to enhance productivity, accountability, and morale.
- Resolved method failures and designed systematic improvements to core methodologies.

Aquatic Toxicology Lab Director – McCampbell Analytical Inc. - Pittsburg, CA **December 2022 – October 2025**

- Revamped department operations, integrating automation and data QA systems to streamline client deliverables.
- Collaborated with Sales and QA/QC teams to design new pricing models and client proposals.
- Launched department-wide efficiency initiatives, cutting report turnaround time by 25% and reducing waste.
- Environmental Consulting: familiar with client regulatory permits, prepared proposals for the state water board, and developed new testing methods.
- Directed a team of eight laboratory staff and coordinated client testing schedules and associated logistics.
- Created and reviewed comprehensive toxicology statistical and analytical reports and invoices for clients.
- Answered technical inquiries from customers and investigated anomalous data.

R&D Chemist – McCampbell Analytical Inc. - Pittsburg, CA **April 2020 – April 2024**

- Developed specialized analytical methods for complex samples, including wastewater, sediments, and tissues.
- Authored SOPs, technical reports, and peer-reviewed manuscripts on emerging contaminants.
- Stayed current with scientific literature and industry developments, identified opportunities for innovation.
- Conducted experiments to evaluate the performance of new products and processes, analyzed data, and drew conclusions.
- Researched emerging contaminants of concern and developed digital marketing strategies for new products.

Clinical Supervisor & Lead Chemist for COVID-19 Testing – McCampbell Analytical Inc. **April 2020 – April 2022**

- Established a CLIA-accredited COVID-19 testing facility and developed a qPCR assay adopted by local agencies.
- Generated over \$3M in departmental profit within two years through innovative test design and automation.
- Implemented robotic automation and Python-based API scripting to scale throughput 5x.
- Collaborated with local health authorities and other stakeholders to ensure testing services were delivered per community needs and public health guidelines.

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PROFESSIONAL EXPERIENCE (CONTINUED)

Aquatic Toxicology Laboratory Supervisor – [McCampbell Analytical Inc.](#) – [Pittsburg, CA](#) **July 2017 – April 2020**

- Supervised bioassay testing and ensured full compliance with EPA and ASTM guidelines.
- Improved QA/QC systems to increase report accuracy and consistency across testing protocols.
- Organized and analyzed test data using CETIS software, prepared statistical reports.
- Created new test methods, built infrastructure, and prepared guidance documents (SOPs).
- Conducted 30+ Aquatic Toxicology testing bioassays following EPA and ASTM guidelines.

Researcher in Developmental Biology – [Bodega Marine Laboratory](#) - [Bodega Bay, CA](#) **June 2016 – July 2017**

- Led research on photo-activated DNA repair in marine embryos using advanced fluorescence microscopy.
- Used fluorescent cell tagging assays and advanced 3D fluorescence microscopy to quantify rates of cell death and DNA replication.
- Presented findings contributing to the understanding of UV-induced DNA damage in marine ecosystems.

EDUCATION

Bachelor of Science, Environmental Toxicology, Emphasis in Aquatic Toxicology | [UC Davis](#) – [Davis, CA](#)
Graduated June 2017

LEADERSHIP AND COMMUNITY OUTREACH

Professional Director – [NorCal Society of Environmental Toxicology and Chemistry](#) **January 2022 – Present**

- Prepare for annual chapter meetings, review and score grant and scholarship applications.
- Meet regularly with other board members to develop programs driving community outreach and student engagement.

Volunteer Rock Climbing Guide – [2025 Climb Smart](#) – [Joshua Tree, CA](#) **November 2025**

- Lead clinics, demonstrations, and group climbs focused on safe climbing techniques and outdoor stewardship.
- Mentor participants of all levels, promoting community, education, and responsible climbing practices.

TECHNICAL SKILLS

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| Aquatic Toxicology: | EPA Acute, Chronic, Freshwater, Marine, Water, Sediment, & Development test methods |
| Clinical Lab Expertise: | RT-PCR, qPCR, RNA extraction, Solid Phase Extraction (SPE), Dispersive SPE (dSPE) |
| Chemistry Lab Expertise: | GC-MS, GC-MS/MS, GC-FID, GC-ECD, HPLC, LC-MS/MS, pH, D.O., Conductivity Total Ammonia, Total Chlorine, Nitrate, Nitrite, Titration: Alkalinity and Hardness. |
| Computing Expertise: | Python, VBA Macros, LIMS, Microsoft: Word, Excel, Access, OneNote, Outlook, Teams |