AARON M. C. WALLER

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https://aaronwaller.tech (personal website)

Education

<u>New Mexico State University</u>—Las Cruces, NM **(08/2019 - 05/2022)**
Bachelor of Science in Genetics and Biotechnology with a Minor in Biochemistry

<u>Los Alamos High School</u>—Los Alamos, NM **(08/2013—06/2017)**
High School Diploma

Work Experience

Wet Lab Work:

    <u>I.</u>   <u>Los Alamos National Laboratory</u>, Los Alamos, NM   **(05/2022 – Present)**
        Role: Post bachelor's student in Bioscience Division
- Aseptic techniques using biological safety cabinets
- Mammalian cell culturing (hiPSCs, hDF, cFB)
- Bacteriophage research targeting multi antibiotic resistant bacteria
- Human gut microbiome research (anaerobic chamber)
- Cell Staining and Microscopy

    <u>II.</u>   <u>Specifica Inc.</u>**,** Los Alamos, NM   **(08/2018 - 08/2019)**
        Role: Student Intern
- Cleaning & sterilizing glassware and plasticware using autoclaves
- Maintaining solutions, petri dishes with appropriate media, stocking lab
- Phage testing and disinfecting lab
- DNA/RNA extraction & quantification (Nanodrop & Qubit)
- ELISA (Enzyme Linked ImmunoSorbent Assay), PCR – Polymerase Chain Reaction, Gel Electrophoresis, Western & Southern blotting

Service Work:

    <u>III.</u>   <u>Los Alamos National Laboratory</u>, Los Alamos, NM   (**10/2022 – Present)**
        Role: Hazmat Specialist in Emergency Response
- Trained to handle CBRNe materials
- IS-100, 200, 700, & 800 certifications from FEMA EMI
- Full-Entry certified for Hazmat Technician pursuant to 29 CFR 1910.120

    <u>IV.</u>   <u>Waller's Plumbing & Heating Inc.</u>, Los Alamos, NM   **(06/2015 - 01/2018)**
        Role: Apprentice Plumber
- Troubleshoot and installation of plumbing systems
- Assess and repair heating and cooling systems
- Technical expertise with special equipment such as boilers, water heaters, solar panel systems, HVAC systems, sewer lines, toilets, sinks, bathtubs and more

Honors & Awards

- **LANL Spot Award** (2023)
- **Dean's list** 2018-2019 (UNM-LA) and Fall 2019 - Fall 2021 (NMSU)
- **Co-president** of Phi Theta Kappa Honor Society at UNM Los Alamos (2018-2019)
- All-State Community College **Academic Team Award** (2019)

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Computer Proficiency Skills

- Microsoft Office programs (Word, Excel, PowerPoint)
- Python programming (Data Analytics)
- Technical Writing (Scientific Publications and Protocols)
- Adobe Illustrator (Scientific Illustrations for Publications)
- Public Speaking and Presentations

Publications:

1. **Review**: *"The Quest to Achieve a Fully Chemically Defined Animal Cell Culture Media: Analyzing Historical Components to Future Advancements"* **Aaron Waller**, Greg Colello, Nathan Cruz, Elan Colello, Andrew Abernathy, and Anand Kumar. MDPI *Cells*. Spring 2024.

Presentations:

1. **Poster**: *"Feeding the Future: Revolutionizing Food Security Through Animal Cell Culture Media Optimization"* **Aaron Waller**, Elan Colello, Greg Colello, Peter Davenport, Meenakshi Meenakshi, Anand Kumar. Los Alamos National Laboratory Bioscience Day, September 2023. Los Alamos, NM.

Data Science / Programming Experience: (Python)

1. **Predictive Modeling and Analysis**
   a. In my breast cancer predictive modeling project, I demonstrated expertise in data analysis, preprocessing, and machine learning with Python, using tools like Pandas, NumPy, and Scikit-learn to create advanced visualizations and evaluate model performance. My work included in-depth exploratory data analysis, linear regression modeling, and insightful visualizations of correlation matrices and learning curves, showcasing my ability to extract meaningful insights from complex datasets.
2. **Algorithmic Trading (WIP)**
   a. In my Python-based trading project, I skillfully integrated APIs to connect with exchanges, automating trade orders based on selected parameters like the Fear & Greed Index, showcasing my proficiency in API integration and algorithmic trading strategies.

Community Outreach Experience:

1. **JSTI – Joint Science & Technology Institute**
   a. DoD funded collaboration with LANL, UNM & JSTI to teach high school students about the exciting possibilities in Science and Technology
      i. Role: Teaching Assistant/ Research Assistant
      ii. Location: Albuquerque, NM
      iii. Date: 2023