

Edna Chiang

PhD microbiologist, data scientist, and science communicator

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EDUCATION

Microbiology PhD, University of Wisconsin-Madison

2016 - 2022

Microbiology and Spanish BS, University of Michigan-Ann Arbor

2011 - 2015

PROFESSIONAL SUMMARY

- I am a PhD microbiologist, bioinformatician, and science communicator with 7 years of research experience, PhD minors in life sciences communication and biotechnology, and extensive training in data analysis, visualizations, and science communication/policy.
- I am seeking opportunities to work in a multidisciplinary team to help make data-driven decisions and make complex ideas accessible to diverse audiences.

WORK EXPERIENCE

COVID-19 Data Analyst, Colorado Department of Public Health & Environment

May 2023 - Present

- Analyzed statewide COVID-19 tests, cases, hospitalization, death, and variant data using R, RShiny, SQL, and Tableau to maintain databases, manipulate data, identify trends, perform quantitative multi-variate statistical analyses, create visualizations for non-technical audiences, and respond to internal and external information requests.
- Helped to update the public-facing state COVID-19 dashboard to reflect the end of the COVID-19 Public Health Emergency by providing feedback to improve dashboard backend documentation.

Graduate Research Assistant, University of Wisconsin-Madison

Aug 2016 - Aug 2022

- Investigated the impact of dramatic nutritional changes on host-microbe interactions in hibernating mammals.
- Simultaneously coordinated 5 research projects and collaborated with a multidisciplinary team across different institutions to design, plan, and execute experiments in accordance with deadlines, resulting in 4 published papers.
- Analyzed large scale, community-level datasets consisting of millions of microbial DNA sequences using R and python to perform statistical tests and to create visualizations for both technical and non-technical audiences.
- Developed, wrote, and taught standard operating procedures for microbiology experiments and biostatistical analyses.
- Curated DNA datasets for incorporation into government open access databases by ensuring data was organized, properly formatted, easily reusable, and adhered to government database rules.
- Wrote and edited scientific manuscripts by evaluating the rigor of experimental design and statistical analyses, summarizing key ideas from source material, creating clear and concise tables and visualizations, and meticulously explaining scientific protocols for transparency and reproducibility.

Science Policy Fellow, Federation of American Societies for Experimental Biology (FASEB)

May 2019 - Aug 2019

- Communicated science policy news to multidisciplinary scientists by distilling relevant information from congressional briefings/hearings, as well as from stakeholder meetings of federal science agencies and professional scientific societies, into 9 articles published in the FASEB Washington Update newsletter.

SKILLS

R, python, SQL, Tableau, RShiny, Microsoft Office, bash, Linux/Unix, GitHub, English, Spanish, and Mandarin Chinese