

# JING LIU, PH.D.

Tel: +1 (425) 623-2020 | Email: [jing.liu0802@gmail.com](mailto:jing.liu0802@gmail.com) | Web: <https://jingliu92.github.io/> | [LinkedIn](#) | Seattle, WA

## SUMMARY

Postdoctoral Bioinformatician and Microbiologist with 5+ years of experience in analyzing complex biological datasets including metagenomics, RNA-seq, and WGS. Demonstrated success in partnering with cross-functional research teams to design, implement, and scale bioinformatic workflows. Skilled in experimental design, statistical computing and data visualization with a strong foundation in both wet and dry lab methods. Seeking to apply deep expertise in computational biology to drive impactful solutions at the interface of life sciences and data science.

## TECHNICAL SKILLS

**Programming & Tools:** Python, R, Bash, SQL, Git, Tableau, Jupyter, MATLAB (basic)

**Bioinformatics:** RNA-seq, scRNA-seq, 16S, WGS, metagenomics, variant calling, AMR gene profiling, CRISPR analysis

**Tools & Pipelines:** QIIME2, MetaPhlAn, DESeq2, Trinity, HISAT2, Bowtie2, SAMtools, SPAdes, BLAST, Scanpy

**Wet Lab:** Experimental design, DNA/RNA isolation, qPCR, NGS library prep, bacterial/cell culture, sample prep

## PROFESSIONAL EXPERIENCE

### IEH Laboratories and Consulting Group | Seattle, WA

01/2025 – Present

*Research Scientist – Bioinformatics & Food safety*

- Redesigned and automated pipelines for metagenomic and WGS analysis to meet regulatory and client needs
- Performed routine statistical analysis and visualization for experimental and observational microbiome datasets
- Designed and conducted wet lab experiments on food samples using molecular techniques including DNA/RNA extraction, RT-PCR, NGS library preparation, and bacterial culturing and isolation
- Interpreted analytical results and generated comprehensive reports for client deliverables
- Collaborated with cross-functional research teams to developing rapid detection methods to assess the pathogenicity of bacteria found in food samples, enabling timely risk evaluation and response

### USDA-ARS | Madison, WI

08/2024 – 01/2025

*Postdoctoral Research Fellow – Bioinformatics & Microbiology*

- Designed scRNA-seq and metatranscriptomic analysis workflows for host–microbe interaction studies
- Conducted multi-omics analyses on antimicrobial resistance, functional pathways, and microbial diversity in cattle
- Collaborated with multiple labs to support translational research through bioinformatics and statistical modeling

### Oklahoma State University | Stillwater, OK

05/2019 – 08/2024

*Graduate Research Assistant – Bioinformatics & Microbiology*

- Developed end-to-end bioinformatic workflows for microbiome profiling, genome assembly, and functional annotation
- Performed molecular biology assays including DNA/RNA isolation, qPCR, and microbial culturing and isolation
- Provided core bioinformatics support for interdisciplinary collaborations across multiple labs; contributed to **18** peer-reviewed publications, including 4 first-author papers, in microbiome research, Alzheimer’s disease, and poultry genomics. Full publication list available [\[here\]](#)

## EDUCATION

### Oklahoma State University

07/2024

Ph.D. in Animal Science (Microbiology & Bioinformatics)

Stillwater, OK, USA

### Nanjing Agriculture University

06/2017

M.S. in Animal Science (Microbiology)

Nanjing, Jiangsu, China

### Yangzhou University

06/2014

B.S. in Animal Science

Yangzhou, Jiangsu, China

## SELECTED AFFILIATIONS AND SERVICES

- **Judge** of Oklahoma State Science and Engineering Fair
- **Reviewer** of Animal Microbiome, Frontiers in Microbiology, iMeta, iMetaOmics, BMC Microbiology, Animals
- **Guest Editor** for *Agriculture* (MDPI), Special Issue, “Gut Microbiota and Immunity of Poultry”
- **Member** of American Society for Microbiology