

YING HIU LI, PH.D.

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Ph.D. in Entomology with 7+ years experience in data pipelines and analysis. Proven scientific track record with 6 peer-reviewed publications; experienced in leading teams and collaborative work. Creative, results-driven, productive.

TECHNICAL SKILLS

Data infrastructure

- Airflow (Python)
- SQLAlchemy ORM
- Relational databases
- Package management (pip)

Cloud computing

- Google Cloud Platform (GCP)
- AWS (EC2, S3, cli)
- Kubernetes

Analysis

- Looker, Tableau
- Matplotlib, Pandas, NumPy
- Jupyter Notebook

Collaborative space

- Git/Github/Gitlab
- JIRA
- Docusaurus (React)
- Screwdriver CI/CD

EXPERIENCE

Data Engineer

Calico Life Sciences (2021 - Present)

- Designed and implemented automated workflows of biological data using Airflow and Kubernetes on Google Cloud Platform (GCP); collaboration alongside scientific researchers to analyze large datasets

Data Engineer

SymphonyRM (2019 - 2021)

- Scrum master in a Kanban-style Agile environment (JIRA) and documentation on Confluence
- Architected and deployed automated batch ETL processing of 100+ unique data sources on AWS using Airflow, increasing performance time by 12% and resulting in est. \$200K AMR
- Implemented file tracking system to track and monitor 100+ flat files across many servers (SFTP, S3) to increase visibility and standardize file ingestion, which streamlined batch processing and reduced technical debt

Discovery Oncology Researcher, Intern

Genentech, Inc. (Jun - Oct 2018)

- Led research on examining the role of a DNA helicase contributing to DNA mismatch repair defective cancers
- Optimized protocol using automated high-throughput screening to image and score DNA damage in cancer cells

Graduate Student Researcher | Ethnic Studies TA

UC Davis (2014 - 2018)

- Led, developed, and executed research on understanding how nutrient-dependent signaling can regulate the circadian clock; resulted in first-author publication in *PLoS Genetics*
- Built in-house Python programs to automate research analysis pipeline and created metrics for DNA analysis
- Secured over \$8000 research funding; presented 20-minute talk at a scientific conference with over 6000 attendees

Staff Research Associate | Junior Research Specialist

UC Davis (2010 - 2014)

SELECTED PUBLICATIONS

Li, Y.H., Liu, X., Zheng, H., Vanselow, J.T., Schlosser, A. Chiu, J.C. 2019. O-GlcNAcylation of PERIOD regulates its interaction with CLOCK and timing of circadian transcriptional repression. *PLoS Genetics*. <https://doi.org/10.1371/journal.pgen.1007953>

Liu, X., ...Li, Y.H., et al. 2021. Hexosamine biosynthetic pathway and O-GlcNAc-processing enzymes regulate daily rhythms in protein O-GlcNAcylation. *Nature Communications*. <https://www.nature.com/articles/s41467-021-24301-7>

EDUCATION

Data Analytics & Visualization Bootcamp Certification - UC Berkeley Extension

Ph.D. in Entomology, Designated emphasis in Biotechnology - UC Davis

B.S. in Biotechnology, Emphasis in Fermentation/Microbiology - UC Davis

HOBBIES

Freelance web design

Snowboarding

Photography