

Lifeng Lin, PhD

Knowledge-driven Coding for Better Assays

Contact

✉ Bioinformatics.Scientist@gmail.com
☎ 224-444-0263
🌐 [LinkedIn](#) | [GitHub](#) | [ResearchGate](#)

Professional Summary

Seasoned bioinformatics scientist with 15 years of expertise in nucleic acid assay development across NGS, qPCR, and single-cell technologies. Proven track record in leading engineering teams, architecting full-scale design workflows, and delivering hundreds of complex assays on industry-leading platforms.

Professional Experience

Principal Scientist - Bioinformatics | Cepheid inc. (A Danaher Company)

2020.10 - Present - **Lead** and manage **Bioinformatics Engineering team**, orchestrating server infrastructure, code repository management, and workflow automation - **Develop** and maintain in-house Python libraries, automated pipelines, and web applications for streamlined assay development - **Advise** as Subject Matter Expert, providing strategic insights to company leadership on bioinformatics capabilities - **Pioneer** advanced thermodynamic predictive models using machine learning approaches

Data Scientist III | Bio-Rad Laboratories

2019.04 - 2020.10 - **Optimized Python pipeline** for the Digital Assays Design Engine - **Web app and database** design for the Digital Assays Web Portal (<https://www.bio-rad.com/digital-assays>) - **Designed Assays** in-house infectious disease assays

Panel Design Lead / System Admin | Paragon Genomics

2017.12 - 2019.04 - **Architected web portal** for ParagonDesigner (https://www.paragongenomics.com/paragon_designer/) - **Coded** high-throughput pipeline for RNA expression assay design (Bash + Python + R) - **Administered** AWS clusters for data analysis and company web infrastructure - **Restructured pipeline** using Snakemake and anaconda

Staff Scientist | Thermo Fisher Scientific

2015.04 - 2017.12 - **Designed** of specialized panels, including patent-pending Immune Repertoire and plant barcoding solutions - **Improved design protocols** for custom human NGS panels meeting FDA submission requirements - **Coded** automated design pipelines for bacterial and viral target analysis

Senior Bioinformatics Scientist | Nanosphere inc (A Luminex Company)

2010.6 - 2015.4 - **Conducted genome analysis** for target pathogens - **Large sequence database** construction and maintenance - **Designed assays** for Verigene Enteric Pathogen panels, Sepsis panels and Respiratory Pathogen panels

PhD Student / Research Assistant | University of Georgia, Plant Genome Mapping Lab

2003.8 - 2010.5 - **Assembled** the first cotton genome (G. raimondii) - **Mapped** cotton fiberless gene (Li2) - **Dated** ancient genome duplication events in cotton-grape comparative genomics

Patents

- **Compositions and Methods for Immune Repertoire Sequencing**
Patent ID: WO2020018836
Inventors: Timothy Looney, Geoffrey Lowman, Lifeng Lin

Education

- **PhD** | University of Georgia (2010)
- **B.S.** | Fudan University (2003)

Selected Publications

1. Paterson, A. H., J. F. Wendell, et al. (2012). "Repeated polyploidization of Gossypium genomes and the evolution of spinnable cotton fibres." *Nature*, 492: 423-427
2. Lin, L., A. H. Paterson (2011). "Size variation in homologous segments across divergent plant genomes." *Mob Genet Elements*, 1(2): 92-96
3. Lin, L., G. J. Pierce, et al. (2010). "A draft physical map of a D-genome cotton species (Gossypium raimondii)." *BMC Genomics*, 11: 395