

Curriculum Vitae

Name Guangyuan(Frank) Li
Address 90 Sciarappa Street, Cambridge, MA, 02141
Email li2g2@mail.uc.edu
Blog <https://frankligy.medium.com/>
GitHub <https://github.com/frankligy>
LinkedIn <https://www.linkedin.com/in/guangyuan-li-399617173/>

Skill Sets

1. *Deep Learning (Pytorch, Tensorflow, Keras) and probabilistic modeling.* [[Paper](#), [Code](#)]
2. *Single-Cell Multimodal analysis (scRNA-Seq, CITE-Seq, scATAC-Seq, TCR, Spatial).* [[Paper](#), [Code](#)]
3. *Neoantigen pipeline, Immune Repertoire, Cancer Immunotherapy* [[Poster](#), [Code](#)]
4. *Gene Regulatory Network, Splicing Regulatory Network* [[Poster](#)]
5. *Web development (HTML, CSS, JavaScript, Flask, Dash, MySQL).* [[Demo1](#), [Demo2](#), [Code1](#), [Code2](#)]
6. *Python, Linux, R, Matlab, C, Data Visualization.* [[Tutorials authored by me](#), [Code](#)]
7. *Code Documentation* [[Example1](#), [Example2](#)]
8. *Docker, Singularity* [[Example](#)]
9. *Quick and continual Learner.*

Education

08/2019 - present PhD student, Division of Biomedical Informatics
 Cincinnati Children's Hospital Medical Center, United States

09/2018 - 04/2019 Exchange Student, Biodesign Institute
 Arizona State University, United States

09/2015 - 06/2019 Bachelor of Science, Division of Life Science
 Wuhan University, China

Working Experience

05/2022 - present Bioinformatics Intern, Sanofi, Cambridge, MA, United States

- Evaluating spatial deconvolution methods on 10x Visium data to guide the drug target selection and validation
- Developing standardized spatial analysis framework on AWS server to support bench scientists analysis

03/2017 - 06/2017 Research Intern, Beijing Genome Institute (BGI), Shenzhen, China

- Participating cancer vaccine development using in-vitro T cell assays
- Analyzing single-cell data to generate novel hypothesis in tumorigenesis

Publication

1. **Li, Guangyuan***, Balaji Iyer, V. B. Surya Prasath, Yizhao Ni, and Nathan Salomonis. 2021. "DeepImmuno: Deep Learning-Empowered Prediction and Generation of Immunogenic Peptides for T-Cell Immunity." ***Briefings in Bioinformatics*** 22 (6). <https://doi.org/10.1093/bib/bbab160>.
2. **Li, Guangyuan***, Baobao Song, H. L. Grimes, V. B. Surya Prasath, and Nathan Salomonis. 2021. "scTriangulate: Decision-Level Integration of Multimodal Single-Cell Data." ***bioRxiv***. <https://doi.org/10.1101/2021.10.16.464640>.
3. Jin, Kang, Daniel Schnell, **Guangyuan Li**, Nathan Salomonis, V. B. Surya Prasath, Rhonda Szczesniak, and Bruce J. Aronow. n.d. "CellDrift: Inferring Perturbation Responses in Temporally-Sampled Single Cell Data." ***bioRxiv***. <https://doi.org/10.1101/2022.04.13.488194>.

Conference Presentation

1. **Guangyuan Li**, Nathan Salomonis. *scTriangulate: Decision-Level Integration of Multimodal Single-Cell Data*. Oral presentation at **Chan Zuckerberg Initiative (CZI) Single Cell Annual Meeting**; 2021 Oct 16th; Zoom
2. **Guangyuan Li**, Matthew Weirauch, Emily Miraldi, Nathan Salomonis. *Context-specific splicing regulatory network inference from large-scale alternative splicing data*. Poster presentation at **Cold Spring Harbor Laboratory (CSHL) System Biology Conference**; 2021 Mar 9-12th; New York (United States)
3. **Guangyuan Li**, Nathan Salomonis, *SNAF: Accurate and compatible computational framework for identifying splicing derived neoantigens*. Poster presentation at **American Association of Cancer Research (AACR) Annual Meeting**; 2022 April 8-13th; New Orleans (United States)