Curriculum Vitae

Name　　　　Guangyuan(Frank) Li
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Blog　　　　　https://frankligy.medium.com/
GitHub　　　　https://github.com/frankligy
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Skill Sets

1. *Deep Learning (Pytorch, Tensorflow, Keras) and probabilistic modeling*
2. *Single-Cell Multimodal analysis (scRNA-Seq, CITE-Seq, scATAC-Seq, TCR, Spatial)*
3. *Neoantigen pipeline, Immune Repertoire, Cancer Immunotherapy*
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 [Example1, Example2]*
9. *Quick and continual Learner.*

Education

08/2019 - 08/2023　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

09/2023 - present　Postdoctoral Researcher, New York University, New York, NY, United States
- Developing next generation peptide-centric CAR-T therapy (PC-CAR)

05/2022 - 08/2022　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

First-Author Publications

1. **<u>Guangyuan Li</u>***, Balaji Iyer, V.B. Surya Prasath, YiZhao Ni, 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. **<u>Guangyuan Li</u>***, Baobao Song, Harinder Singh, V.B. Surya Prasath, H. Leighton Grimes, Nathan Salomonis. 2022. "Decision level integration of unimodal and multimodal single cell data with scTriangulate" *Nature Communications* 14. https://doi.org/10.1038/s41467-023-36016-y

3. **<u>Guangyuan Li</u>***, Shweta Mahajan*, Siyuan Ma, Erin D. Jeffery, Xuan Zhang, Anukana Bhattacharjee, Meenakshi Venkatashubramanian et al. 2024. "Splicing Neoantigen Discovery with SNAF Reveals Shared Targets for Cancer Immunotherapy." Science Translational Medicine January. https://doi.org/10.1126/scitranslmed.ade2886.

4. **<u>Guangyuan Li</u>***, Anukana Bhattacharjee, Nathan Salomonis. 2023 "Quantifying Tumor Specificity Using Bayesian Probabilistic Modeling for Drug Target Discovery and Prioritization." BioRxiv. https://www.biorxiv.org/content/10.1101/2023.03.03.530994v1

5. **<u>Guangyuan Li</u>***, Amir Bayegan, Joon Sang Lee, Donald Jackson, Jack Pollard. 2022. "Evaluating diverse deconvolution methods for tumor spatial transcriptomic datasets." *Journal for ImmunoTherapy of Cancer* 2022;10 https://doi.org/10.1136/jitc-2022-SITC2022.0926

<u>Collaborative Publications</u>

6. Minzhe Guo, Michael P. Morley, Cheng Jiang, Yixin Wu, **<u>Guangyuan Li</u>**, Yina Du, Shuyang Zhao et al. 2023. "Guided Construction of Single cell Reference for Human and Mouse Lung." *Nature Communications* 14 (1): 1-20. https://www.nature.com/articles/s41467-023-40173-5

7. Kang Jin, Daniel Schnell, **<u>Guangyuan Li</u>**, Nathan Salomonis, V.B. Surya Prasath, Rhonda Szczesniak, Bruce J. Aronow. "CellDrift: Inferring Perturbation Responses in Temporally-Sampled Single Cell Data." *Briefing in Bioinformatics*. https://doi.org/10.1093/bib/bbac324