

JOHNATHAN JIA

Currently searching for fulltime position

I am currently working fulltime as a data analyst in the Liu lab at Baylor College of Medicine. My current projects include QC and analysis of brain organoid scRNA-seq data. I am also currently involved in an IMC project, working to enhance cancer signals using pipelines in Python. I am interested in a fulltime position as a data scientist with broad interests including machine/deep learning, big data analysis, and LLMs.



PROFESSIONAL EXPERIENCE

- Jan 2023
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Current

Data Analyst Associate
Baylor College of Medicine Liu Lab
Houston, TX

- QC and analyzed scRNA-seq data from brain organoid tissues
 - Developed pipelines in Python and R for use
 - Pipeline for IMC Data Analysis
- April 2019
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August 2020

Research Assistant I
MD Anderson Cancer Center Immunotherapy Platform
Houston, TX

- Collected and prepared samples of blood, bone marrow, and tumor for storage and analysis

RESEARCH EXPERIENCE

- January 2020
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December 2022

Graduate Research Assistant
UT Health Science Center at Houston Graduate School of Biomedical Sciences Zhao Lab
Houston, TX

- Developed DeepHTLV
 - Analyzed COVID-19 scRNA-seq data transcriptional programs using DrivAER
 - Wrote review of current COVID-19 scRNA-seq research
- January 2012
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May 2015

Undergraduate Research Assistant
Emory University Antia Lab
Emory University

- Used deterministic and stochastic predator-prey equations to model viral infection dynamics

EDUCATION

- August 2020
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December 2022

University of Texas Health Science Center at Houston Graduate School of Biomedical Sciences
M.S. in Quantitative Sciences
Houston, TX

Thesis: DeepHTLV: a deep learning model for detecting and elucidating human T-cell leukemia virus type 1 integration sites
- August 2015 - May 2018

University of Texas Health Science Center McGovern School of Medicine
Houston, TX
- August 2011
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May 2015

Emory University
B.S. in Biology with High Honors, B.A. in Chemistry
Houston, TX

Thesis: Investigating heterogeneity in the dynamics of virus and immune response following a yellow fever vaccination

CONTACT INFO

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SKILLS

R
Python
Bash
Jupyter
LaTeX
Tensorflow
Pytorch
Git/Docker



PUBLICATIONS

2023

Deep learning for detecting and elucidating human T-cell leukemia virus type 1 integration sites

Cell Patterns

📍 Houston, TX

Haodong Xu and **Johnathan Jia**, Hyun-Hwan Jeong, Zhongming Zhao

2022

Review of COVID-19 scRNA-seq technologies

The Innovation

📍 Houston, TX

Wendao Liu, **Johnathan Jia**, Yulin Dai, Wenhao Chen, Guangsheng Pei, Qiheng Yan, Zhongming Zhao

2021

Investigating Cellular Trajectories in the Severity of COVID-19 and Their Transcriptional Programs Using Machine Learning Approaches

Genes

📍 Houston, TX

Hyun-Hwan Jeong and **Johnathan Jia**, Yulin Dai, Lukas Simon, Zhongming Zhao

What Controls the Acute Viral Infection Following Yellow Fever Vaccination?

Bulletin of mathematical biology

📍 James Moore, Hasan Ahmed, **Johnathan Jia**, Rama Akondy, Rafi Ahmed, Rustom Antia



HONORS AND AWARDS

Best presentation at QS Seminar

2022

📍 Best QS seminar presentation

First prize at UTH GSBS Quantitative Sciences Retreat Poster Presentation

2022

📍 First prize for pre-candidacy students

Rheumatology Research Foundation Research Award

2026

📍 Awarded for Shenzhen AS cohort research