Junyi Jiao

Software Engineer

Mountain View, United States

Email jiaojunyi90@gmail.com

Phone 2035007843

Experience

Google, LLC

Mountain View, CA

Nov. 2021 - present

Software Engineer | Youtube Shorts Discovery

- TLM of shorts exploration: lead a group of ~10 engineers to work on the video cold start problem: find the initial audiences for newly uploaded videos to enlarge the recommendable corpus valued by both viewers and creators.
    - Leverage two tower models with ANN to find potential audiences for newly upload items
    - Leverage video understanding(e.g. embedding) to find initial audiences for newly uploaded shorts.
    - Built lift model to prioritize video exploration.
    - Introduce uncertainty modeling to improve ranker's performance on cold start items.
- Leads shorts local discovery as a sub ecosystem: Initiated the local shorts discovery workstream by introducing location signals into youtube, building location based recommendation tech stack, leading the place pivot page launch.
    - Designed and built location based recommendation tech stack by introducing location signals into youtube, designing/launching local features into major shorts models in both retrieval and ranking stage, improving ranking model with effective feature interaction modules with DCN and hiformer

March 2019 - Nov. 2021

Software Engineer, TL | Display Ads Audience Targeting

- **Power ads targeting with ML and automation.** Implemented machine learning infrastructure for model training, serving and application. Explored and delivered a few launches with various techniques to enhance model quality for targeting.
- **Improve targeting quality** by increasing signal coverage and enhancing serving efficiency**.** Leads the team to enhance targeting quality, deliver good advertiser ROI and ensure efficiency/stability/healthiness for audience-targeting. Bring >=$150M-ARR with 6 quality-launches**.**
- **FLoC evaluation/simulation to get display ads prepared after third party cookie sunset.** Collaborated with members across Google, I built infrastructure for the FLoC simulation pipeline, explored various algorithms and feature space for FLoC clustering and provided critical analysis for FLoC original trial and FLoC2.0 decision

making.

- **Awards & Recognition**
  - AViDly Awards
  - Received 6 peer bonus and 4 spot bonus.

San Francisco, CA

Bloomberg L.P.

2018 - 2019 | Software Engineer | BQNT Framework

- Developed a data pipeline using kafka to collect and store important customer data.
- Implemented an automated versionized release framework
- Build a new automated test-release framework with kubernetes and goCD.

Education

Georgia Institute of Technology

Online

2018-2021 | M.S. | Computer Science (Machine Learning track)

Yale University

New Haven, CT, US

2012-2018 | Ph.D. | Biophysics/Cell Biology

- **Single-molecule protein folding study.**
- **Publications**: google scholar link

Peking University

Beijing, China

2008-2012 | B.S. | Life sciences

- GPA: 3.75, Major: Life sciences

Selected Publications

[1] J. Jiao, S. Port, R. W. Baker, Y. Xu, F. M. Hughson, and Y. Zhang. Munc18-1 and vps33 catalyze snare assembly by templating snare folding and association. Elife, e41771, 2018.
[2] J. Jiao, A. A. Rebane, M. Lu, Y. Gao, and Y. Zhang. Kinetically coupled folding of a single hiv-1 glyco-protein 41 complex in viral membrane fusion and inhibition. Proc Natl Acad Sci U S A, 112, 2015.
[4] Y. Lin, J. J. Long, F. Huang, W. C. Duim, S. Kirschbaum, Y. Zhang, L. K. Schroeder, A. A. Rebane, M. G. Velasco, A. Virrueta, D. W. Moonan, J. Jiao, S. Y. Hernandez, Y. Zhang, and J. Bewersdorf. Quantifying and optimizing single-molecule switching nanoscopy at high speeds. Plos ONE, 113, 2015.
[6] L. Ma, Y. Cai, Y. Li, J. Jiao, Z. Wu, B. O'Shaughnessy, P. B. De Camilli, E. Karatekin, and Y. Zhang. Single-molecule force spectroscopy of protein-membrane interactions. eLife, 6, 2017.
[7] X. Zhang, A. A. Rebane, L. Ma, F. Li, J. Jiao, H. Qu, F. Pincet, J. E. Rothman, and Y. Zhang. Stability, folding dynamics, and long-range conformational transition of the synaptic t-snare complex. Proc Natl Acad Sci U S A, 113, 2016.
[8] Y. Zhang, J. Jiao, and A. A. Rebane. Hidden markov modeling with detailed balance and its application to single protein folding. Biophys J, 111, 2016.

Presentations

Junyi Jiao, Richard W. Baker, Frederick M. Hughson,Yongli Zhang. (Feb. 2017) Role of Sec1/Munc18 (SM) protein family in SNARE assembly revealed by optical tweezers. Biophysical Society Meeting, New Orleans, LA.

Junyi Jiao, Aleksander A. Rebane, Ying Gao, Yongli Zhang. (Jan. 2015) Kinetically Coupled Folding of a Single HIV-1 Glycoprotein 41 Complex in Viral Membrane Fusion and Inhibition, Single Molecule Biophysics Meeting, Aspen, CO.

Junyi Jiao, Aleksander A. Rebane. (Aug. 2013) Hidden Markov Analysis of Single Nucleosome Dynamics under Force, Physics of Living Systems, Princeton, NJ.

Ao Liu, Haoqian Zhang, Junyi Jiao, Miao Jing, Ying Sheng, Xin Teng, Zhenzhen Yin et.al. (Nov. 2010) Heavy Metal Decontamination Kit, International Genetically Engineered Machine competition Boston, MA.