Yongkang Li

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Website: socralee.github.io| Availability: Jun. 2027 - Sep. 2027

Education

University of Washington, Seattle, PhD in Computer Science and Engineering — Sep. 2024 - Now

- Research Area: Foundation Model in Biomedicine, Natural Language Processing

University of California, Berkeley, MEng in Operations Research — Sep. 2023 - May. 2024

- Core GPA 4.0: Probability Theory (A+), Financial Engineering (A+), Optimization Analysis (100)

Peking University, BS in Data Science — Sep. 2018 - Jun. 2022

Experience

Microsoft Research — Redmond, WA
Research Intern — Jun. 2026 - Sep. 2026

- Designed EvoClinician, a self-evolving framework that builds fully interpretable and auditable medical intelligence from multimodal EHR data.
- Enabled autonomous co-evolution of a perception module that dynamically acquires missing features from the relevant modalities and a cognition module that refines its decision graph to exploit them for more accurate clinical predictions.
- Achieved state-of-the-art performance over EHR foundation models and generic baselines across diverse clinical tasks while remaining fully interpretable.

GE HealthCare — Seattle, WA
Research Scientist Intern — May 2024 - Aug. 2024

- Developed a multi-agent system for single-cell analysis, enabling low-code solutions in the field.
- Improved the accuracy of API invocation and parameter prediction over baseline agents.

Publications

EvoClinician: Self-Evolving System for White-Box Multimodal Clinical Reasoning. **Y. Li**, Z. Jing, P. Argaw, G. Qin, H. Xu, J.M.J. Valanarasu, Z. Gero, N. Usuyama, T. Naumann, S. Wang†, and S. Zhang†. Manuscript in preparation. 2026.

GigaBrain: Multimodal AI for Modeling Heterogeneous MRI Sequences in Precision Neuro-Oncology. G. Qin, K.H. Young, P. Ambady, J. Tu, C. Wong, J.M.J. Valanarasu, Y. Lin, **Y. Li**, X. Liu, S. Zhang, T. Naumann, C. Bifulco†, S. Wang†, and H. Poon†. Under review by ***Nature***. 2026.

MicroDiffuse3D: A Foundation Model for 3D Microscopy Imaging Restoration. **Y. Li**, B. Wong, K.W. Chiu, H. Xu, T. Fang, E. Dunnington, D. Fu†, and S. Wang†. Under review by ***Nature Communications***. 2026.

Input Representations Meet Pretraining Objectives: A Controlled Study of Generative EHR Foundation Models. Z. Jing, C. Wong, W. Chen, **Y. Li**, P. Argaw, N. Usuyama, T. Naumann, S. Joshi†, and S. Zhang†. Under review by ***ICLR 2027***. 2026.

Evo2HiC: A Multimodal Foundation Model for Integrative Analysis of Genome Sequence and Architecture. T. Fang*, **Y. Li***, X. Wang*, Z. Xiao, S. Hang, G. Murtaza, J. Yang, H. Xu, A. Jha, W. Noble†, and S. Wang†. In revision at ***Nature Genetics***. 2025.

Selected Awards and Honors

Second Place in Henan College Entrance Exam (2nd out of 983,000 students) — Jun. 2018
First Prize of Freshmen Scholarship — Dec. 2018
Academic Star and Outstanding Graduate — Jun. 2022