YUFEI LI

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RESEARCH INTERESTS

Natural language processing, Large language model (LLM), Machine learning system, Efficient training & inference

EDUCATION

University of California, Riverside Sep 2022 – Jun 2025 (Expected)
Ph.D. in Electrical and Computer Engineering (GPA: 4.0 / 4.0) Riverside, CA

University of California, San Diego Sep 2018 – Jun 2020
M.S. in Electrical and Computer Engineering San Diego, CA

Xi'an Jiaotong University (XJTU) Sep 2014 – Jun 2018
B.S. in Mechanical Engineering Xi'an, China

EXPERIENCE

Research Intern Jun 2024 – Sep 2024
Google DeepMind Project: Improving LLM factuality via model rewriting Mountain View, CA

Research Intern May 2022 – Aug 2022
NEC Laboratories America, Inc. Project: Log anomaly detection using dynamic graphs Princeton, NJ

Research Intern May 2021 – Aug 2021
NEC Laboratories America, Inc. Project: Distantly-supervised information extraction Princeton, NJ

Research Assistant Aug 2020 – May 2022
University of Texas at Dallas Project: AI-empowered software with safety Dallas, TX

Research Intern Jul 2019 – Sep 2019
Seek Truth Corporation Project: Pose recognition & character detection Beijing, China

SELECTED PUBLICATIONS (* denotes equal contribution)

Yu Fu, **Yufei Li**, Wen Xiao, Cong Liu, Yue Dong. Safety Alignment in NLP Tasks: Weakly Aligned Summarization as an In-Context Attack. *Annual Meeting of the Association for Computational Linguistics (ACL) 2024*.

Yufei Li, Xiao Yu, Yanghong Guo, Yanchi Liu, Haifeng Chen, Cong Liu. Distantly-Supervised Joint Extraction with Noise-Robust Learning. *Findings of the Association for Computational Linguistics (ACL Findings) 2024*.

Yufei Li, Zexin Li, Wei Yang, Cong Liu. RT-LM: Uncertainty-Aware Resource Management for Real-Time Inference of Language Models. *IEEE Real-Time Systems Symposium (RTSS) 2023*.

Zexin Li, Aritra Samanta, **Yufei Li**, Andrea Soltoggio, Hyoseung Kim, Cong Liu. R^3: On-device Real-Time Deep Reinforcement Learning for Autonomous Robotics. *IEEE Real-Time Systems Symposium (RTSS) 2023*.

Shahab Nikkhoo, Zexin Li, Aritra Samanta, **Yufei Li**, Cong Liu. PIMbot: Policy and Incentive Manipulation for Multi-Robot Reinforcement Learning in Social Dilemmas. *International Conference on Intelligent Robots and Systems (IROS) 2023*.

Yufei Li, Xiao Yu, Yanchi Liu, Haifeng Chen, Cong Liu. Uncertainty-Aware Bootstrap Learning for Joint Extraction on Distantly-Supervised Data. *Annual Meeting of the Association for Computational Linguistics (ACL) 2023*.

Yufei Li, Zexin Li, Yingfan Gao, Cong Liu. White-Box Multi-Objective Adversarial Attack on Dialogue Generation. *Annual Meeting of the Association for Computational Linguistics (ACL) 2023*.

Shuyang Li, **Yufei Li**, Jianmo Ni, Julian McAuley. SHARE: a System for Hierarchical Assistive Recipe Editing. *Conference on Empirical Methods in Natural Language Processing (EMNLP) 2022*.

Ke Chen*, **Yufei Li***, Yingfeng Chen, Changjie Fan, Zhipeng Hu, Wei Yang. GLIB: Towards Automated Test Oracle for Graphically-Rich Applications. *International Conference on the Foundations of Software Engineering (FSE) 2021*.

PROJECTS

Content-aware Dynamic Graphs for Log Anomaly Detection | *PyTorch, PyG* | **Code**

- Configured dynamic attributed graphs by identifying log components and their hierarchical relationships
- Proposed a GNN-based temporal-attentive transformer for detecting anomalous edges in dynamic graphs

Assessing the Reusability of Pre-trained Code Embeddings | *PyTorch* | **Code**

- Developed a cost-efficient offline framework to assess the generalizability of embeddings in code analysis tasks
- Evaluated the generalizability of existing pre-trained embeddings leveraging semantic metamorphic relationships

Rethink Negative Sampling in Bayesian Personalized Ranking | *PyTorch* | **Code**

- Identified a limitation of popularity-based sampling due to non-uniform negative sampling biases
- Rectified biases by creating tailored negative sampling distributions to boost Bayesian personalized ranking

Automatic Delivery Vehicle Design | *Python, MATLAB* | **Code**

- Simulated a project integrating the Courier and TSP challenges for autonomous delivery vehicle design
- Formulated a path planning algorithm by incorporating the A* heuristic rules with genetic evolution principles

SKILLS

Programming: Python, C, C++, Java, MATLAB, SQL, Bash, HTML, Markdown

Machine Learning: PyTorch, PyTorch-lightning, PyTorch Geometric (PyG), TensorFlow, Scikit-learn

Miscellaneous: LaTeX, Git, Ansys, SolidWorks, AutoCAD, Photoshop

HONORS & AWARDS

VEX Robotics International Competitions Sep 2016 – Jun 2017
Team Leader & Programmer Louisville, KY

- Excellent Award and Runner-Up at the VEX Robotics World Championship (RECF) 2017
- Excellent Award and Runner-Up at the VEX Robotics Asia Open 2016
- First-class Award at the VEX Robotics China Open 2016

National Encouragement Scholarship Sep 2014 – Jun 2017
Personal (Top 10% from XJTU) Xi'an, China

AREA CHAIR & REVIEWER

Area Chair: ACL 2024, NAACL 2024

Reviewer: EMNLP 2023, KDD 2023, CIKM 2022, RTSS 2023, ICSE 2022, FSE 2022