Weixiang Yan

Applied Scientist II @ Amazon | Palo Alto, California, USA

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EDUCATION

University of California, Santa Barbara

*Master of Science in **Computer Science*** *Sept. 2023 -- Dec. 2024*

- **Research Interests:** Code Intelligence, Agentic RL, Software Automation

Beijing University of Posts and Telecommunications

*Bachelor of Science in **Computer Science** and Bachelor of Science in **Management*** *Sept. 2018 -- June 2022*

- **Awards & Honors:** National Scholarship(2020 & 2021)(Top 1%), WanDatong Scholarship(Top 5%), Merit Student Award, Outstanding Graduate Award, Outstanding Bachelor's Paper

WORK EXPERIENCE

Amazon, Generative Foundation AI, Post-Training Team *Dec. 2024 — present*

Applied Scientist II, Manager: Youna Hu

Alibaba Group, Qwen Team, Speech Lab *July 2022 -- Jan. 2023*

Research Intern, Mentors: Wen Wang, Qian Chen

Microsoft Research Asia, System Team *June 2021 -- Oct. 2021*

Research Intern, Mentors: Yuanchun Li

Peking University, CS Department *Nov. 2020 -- May 2021*

Research Intern, Mentors: Yao Guo

PUBLICATIONS

- **Soft Thinking: Unlocking the Reasoning Potential of LLMs in Continuous Concept Space (NeurIPS 2025)**

Zhen Zhang, Xuehai He, **Weixiang Yan**, Ao Shen, Chenyang Zhao, Shuohang Wang, Yelong Shen, Xin Eric Wang

- **Think-RM: Enabling Long-Horizon Reasoning in Generative Reward Models (NeurIPS 2025)**

Ilgee Hong, Changlong Yu, Liang Qiu, **Weixiang Yan**, Zhenghao Xu, Haoming Jiang, ..., Chao Zhang, Tuo Zhao

- **ClinicalLab: Aligning Agents for Multi-Departmental Clinical Diagnostics in the Real World (NeurIPS 2025)**

Weixiang Yan, Haitian Liu, Tengxiao Wu, Qian Chen, Wen Wang, Haoyuan Chai, Jiayi Wang, Zekun Li

- **CodeHalu: Investigating Code Hallucinations in LLMs via Execution-based Verification (AAAI 2025)**

Yuchen Tian*, Weixiang Yan*, Qian Yang, Xuandong Zhao, Qian Chen, Wen Wang, Ziyang Luo, Lei Ma, Dawn Song

- **CodeJudge-Eval: Can Large Language Models be Good Judges in Code Understanding? (COLING 2025)**

Yuwei Zhao, Ziyang Luo, Yuchen Tian, Hongzhan Lin, **Weixiang Yan**, Annan Li, Jing Ma

- **SpineBench: Benchmarking Multimodal LLMs for Spinal Pathology Analysis (ACM MM 2025)**

Chenghanyu Zhang, Zekun Li, Peipei Li, Xing Cui, Shuhan Xia, **Weixiang Yan**, Yiqiao Zhang, Qianyu Zhuang

- **Decompose and Compare Consistency: Measuring VLMs' Answer Reliability via Task-Decomposition Consistency Comparison (EMNLP 2024)**

Qian Yang, **Weixiang Yan**, Aishwarya Agrawal

- **CodeScope: An Execution-based Multilingual Multitask Multidimensional Benchmark for Evaluating LLMs on Code Understanding and Generation (ACL 2024)**

Weixiang Yan, Haitian Liu, Yunkun Wang, Yunzhe Li, Qian Chen, Wen Wang, ..., Hari Sundaram, Shuiguang Deng

- **Advancing Precise Outline-Conditioned Text Generation with Task Duality and Explicit Outline Control (EACL 2024)**

Yunzhe Li, Qian Chen, **Weixiang Yan**, Wen Wang, Qinglin Zhang, Hari Sundaram

- **CodeTransOcean: A Comprehensive Multilingual Benchmark for Code Translation (EMNLP 2023)**

Weixiang Yan, Yuchen Tian, Yunzhe Li, Qian Chen, Wen Wang

- **WhyGen: Explaining ML-powered Code Generation by Referring to Training Examples (ICSE 2022)**

Weixiang Yan, Yuanchun Li

- **Dependency-aware form understanding (ISSRE 2021)**

Shaokun Zhang, Yuanchun Li, **Weixiang Yan**, Yao Guo, Xiangqun Chen

- **AlphaQuanter: An End-to-End Tool-Orchestrated Agentic RL Framework for Stock Trading (Under Review)**

Zheye Deng, **Weixiang Yan**, Changlong Yu, Jiashu Wang

- **APEX: Empowering LLMs with Physics-Based Task Planning for Real-time Insight (Under Review)**

Wanjing Huang, **Weixiang Yan**, Zhen Zhang, Ambuj Singh

PROJECT EXPERIENCE

Amazon, Generative Foundation AI, Post-Training Team

- **[Hallucination Mitigation]** Responsible for end-to-end governance of hallucination issues for the team, covering post-training data cleaning, evaluation framework development, RLVR-based training, and retrieval quality control, reducing the internal model’s hallucination rate from 63.19% to 17.82% (about a 72% relative reduction).
- **[Agentic Application RL Training]** Explore and develop a hierarchical rubric-driven RLAIF reward mechanism and aggregate it with RLVR, enabling successful deployment of the application RL training recipe and improving the online model’s helpfulness.
- **[Agentic Coding RL Training]** Explore function-level and repository-level code RL training recipes and address key challenges such as low training efficiency, sparse rewards, and reward hacking.
- **[Rubric-driven Helpfulness Evaluation]** Design and build a Helpfulness evaluation benchmark for multi-turn dialogues and diverse shopping scenarios, jointly driven by rubrics and LLM-as-a-Judge to enable systematic evaluation of model helpfulness.

Alibaba Group, Qwen Team, Speech Lab

- **[CodeScope (ACL 2024)]** Propose an execution-based, multilingual, multitask benchmark to evaluate LLMs on code understanding and generation across 43 programming languages and 8 coding tasks, also develop MultiCodeEngine, an automated execution engine for 14 languages.
- **[CodeTransOcean (EMNLP 2023)]** Develop multilingual modeling approaches for code translation and demonstrate their great potential in improving the translation quality of both low-resource and high-resource language pair.
- **[Enhancing Generation with Summarization (EACL 2024)]** Leverage the duality between summarization and generation to improve outline-based generation, and propose a unified outline-control approach to mitigate imbalanced outline utilization.
- **[DialogueAttention (Patent)]** Propose an attention mechanism that extracts and highlights essential spans in multi-person, long-term dialogues to guide generative summarization, enabling the model to focus on critical content, reduce noise from extraneous context, and improve summarization accuracy.

Microsoft Research Asia, System Team

- **[WhyGen (ICSE 2022)]** WhyGen, a tool that explains generated code by referring to training samples during code generation and notifies the user of possible recitations and imitations.

- Award the Honor of Microsoft Research Asia Outstanding Intern ***Star of Tomorrow***. (Top 10%)

Peking University, CS Department

- **[DependEX (ISSRE 2021)]** Propose DependEX, which combines CNN–based semantic feature extraction and transformer–based contextual modeling to identify dependencies between UI form elements. Demonstrate over 92% accuracy on large–scale mobile web datasets and showcase its applicability to automatic form filling and NL–based test case generation.

SERVICES

Area Chair: ACL, ARR, AAAI

Conference Reviewer: NeurIPS, ICLR, ACL, EMNLP, NAACL, AAAI, ARR, EACL, COLM