

# Yiqin Li

London, England

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Computer Science researcher specialising in robot learning and embodied AI. Research interests include Vision-Language-Action (VLA) models, dexterous manipulation, sim-to-real transfer, tactile perception, language-conditioned imitation learning, reinforcement learning, and long-horizon task planning. Currently a Research Assistant at Shanghai Jiao Tong University, maintaining an open-source VLA benchmark leaderboard and contributing to a dexterous-hand manipulation project with real-robot data collection and training.

## Education

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### Imperial College London, London, UK

*MEng Computing (Artificial Intelligence & Machine Learning)*

10/2021 – 07/2025

First-class Honours

- Thesis: *Action Speaks Louder: Multimodal Two-Way Interaction and Data-Efficient Imitation Learning for General-Purpose Table-Top Manipulation*
- Relevant coursework: Deep Learning, Computer Vision, Reinforcement Learning, Natural Language Processing, Robotics, Robot Learning

### Shrewsbury School, Shropshire, UK

09/2016 – 06/2021

- A Levels: Computer Science (A\*), Mathematics (A\*), Further Mathematics (A\*), Physics (A\*)
- GCSEs: 9 at grade 9/A\*, 3 at grade A

## Research Experiences and Projects

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### Shanghai Jiao Tong University, Shanghai

12/2025 – Present

*Research Assistant under Professor Bo Zhao*

*Evo-SOTA – Open-Source VLA Benchmark Leaderboard* ([GitHub](#), [Website](#))

- **VLA Model Benchmarking & Visualisation.** Built and maintained an open-source leaderboard tracking 115+ VLA models across 6 benchmarks (LIBERO / LIBERO-Plus / Meta-World / CALVIN / RoboChallenge / RoboCasa) with structured metric tables, interactive plots, and paper/code links; 100+ GitHub stars and 5500+ views.

*Dexterous-Hand VLA Project*

- **Teleoperation & Data Collection System.** Built a real-robot data-collection system integrating LinkerHand O6 and xArm6 via ROS2 with a UDCAP teleoperation glove via UDP; developed a stable logging pipeline for dexterous manipulation tasks.
- **End-to-End Training & Inference Pipeline.** Adapted a lightweight VLA model (Evo-1) for dexterous manipulation; established a full pipeline from data collection through training to sim/real-robot inference and evaluation.
- **Data & Model Evaluation.** Analysed coordination patterns between arm trajectory and hand action representations across collected demonstrations; designed simulation benchmarks for systematic evaluation of joint arm-hand manipulation performance.

### Language-Guided Imitation Learning for Tabletop Manipulation ([Thesis](#), [Demo](#))

12/2024 – 05/2025

*MEng Thesis, supervised by Professor Edward Johns*

- **System Design.** Built a closed-loop system for multi-step tabletop manipulation: an LLM planner decomposes natural-language commands into a DAG of sub-tasks, a behaviour-tree controller orchestrates perception, policy execution, and automatic failure recovery.
- **Algorithm Adaptation.** Implemented and extended DINOBot imitation learning pipeline in PyBullet with a Franka Panda; adapted DINOBot from single-task to multi-task settings with improved success rates in cluttered multi-object scenes.
- **Interactive Learning Interface.** Developed a task interface that clarifies query ambiguity and requests demonstrations when needed, enabling non-expert users to teach new behaviours on the fly.
- **Evaluation.** Conducted a controlled study with non-expert participants: 100% success on simple

pick-and-place, 65.8% on multi-step tasks with recovery; 2.4× higher task success than a zero-shot baseline; reduced system mental demand to 1.0/7 (NASA-TLX).

## Keizar App, Imperial College London

01/2024 – 04/2024

- **Reinforcement Learning Agent.** Formulated a board game as an MDP and implemented a Q-Learning agent with state and action abstractions, reward shaping, and exploration strategies for sparse rewards; benchmarked against heuristic baselines.
- **Team Coordination & System Integration.** Led task decomposition and sprint planning for a 4-person team; delivered a full-stack Android app (Kotlin Compose front-end, Kotlin back-end, AWS DynamoDB) with CI/CD via GitHub Actions.

## Professional Experiences

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### Thomson Reuters Labs, London

07/2025 – 12/2025

*Applied Scientist Intern*

- **Agentic System Development.** Developed agentic capabilities for Westlaw Deep Research Agent, owned the guardrail subsystem for query-intent classification and policy routing.
- **SLM Fine-Tuning & Benchmarking.** Benchmarked small language models for guardrail classification: compared prompt-only baselines, proprietary models, and LoRA-tuned Qwen3 8B/14B; applied data augmentation, probability calibration, and precision-recall threshold selection.
- **Automated Evaluation Pipeline.** Enhanced an internal SpaCy-based NLP pipeline converting LLM-generated answers into structured representations; evaluated five agent iterations using operational metrics (answer completeness, misattribution rate) to guide development.

### Huawei, London

04/2024 – 09/2024

*NLP Researcher Intern*

- **Knowledge Graph Construction.** Built an LLM-based pipeline for automated knowledge-graph construction on large-scale GPU clusters; generated domain-specific graphs with 30K+ nodes and deployed in Huawei Browser; acknowledged in a Findings of ACL 2025 paper ([PDF](#)).
- **Data Processing System.** Developed a production pipeline (Pydantic, Pandas) converting unstructured LLM-generated graphs into schema-aligned structured data, improving data integrity and maintainability.
- **NLP Tooling.** Built a RAG+LLM pipeline for character relation/attribute extraction and an N-gram-based NER validation module for Huawei Reading; improved NER accuracy by 15%+ on held-out tests.

### Shanghai Wicresoft, Shanghai

07/2023 – 08/2023

*Big Data Engineer Intern*

- **Knowledge Graph & QA System.** Built a Neo4j knowledge graph (10K nodes, 40K edges) and a rule-based pipeline extracting metadata from unstructured legal clauses into structured records (~90% conversion rate) for an AI-driven QA system.
- **Data Processing.** Processed and cleaned 40,000+ entries to support model training and evaluation; developed a graph-access API for internal analysts.

## Honours & Awards

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- First place, Fitch Group Code for Good Codeathon
- UKIEPC 2023, Top 100
- Ripple X EasyA Hackathon, Runner-up Prize

## Skills

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- **Programming:** Python, Kotlin, C, Haskell, SQL
- **Robotics/Simulation:** ROS2, PyBullet, Isaac Sim/Lab, MuJoCo
- **ML/NLP:** PyTorch, LoRA, SpaCy, Pydantic, Pandas, Neo4j
- **Language:** Fluent in English and Mandarin

## Interests

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- Basketball (Imperial College Men's 1st Team), rock climbing, mountaineering (Kilimanjaro summit)