

Ruike (Oliver) Hou

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EDUCATION

University of Toronto

Toronto, Canada

Bachelor of Science in Computer Science Specialist (Co-op); Minor: Statistics

Sept. 2023–May 2027

- Relevant courses: Intro to AI/ML(A-), Human Computer Interaction(A+), Software Engineering(A), Computer Vision(A-), Data Vis.(A+), Parallel programming(A+), Data Structures & Algorithms, etc.

INTERNSHIP EXPERIENCE

Remeda

Toronto, Canada

AI Engineer Intern

Apr 2026 - Present

- Architected a high-throughput, **provider-agnostic LLM orchestration layer** supporting sync/async and real-time streaming across **7 clinical workflows**, reducing **inference latency by 42%** and decoupling multi-model vendor dependencies via 49+ automated test suites.
- Engineered an **EMR sync engine** & rule-based referral recommendation system across 6 medical specialties with **FHIR/OpenMRS integration**, leveraging Redis caching and Neo4j in **100k+ events**.
- Developed the **Dynamo-MedQA adversarial evaluation framework** to rigorously benchmark diagnostic precision/recall and clinical safety, **reducing unsafe-action rates by 35%**.

Nowcoder Co, Ltd

Shanghai, China

LLM Algorithm/ Full Stack Intern

Jun. 2025 – Aug. 2025

- Fine-tuned **LLM prompts** to detect AI interview answer completion; achieved up to **90.5% acc** with **Claude-sonnet-4**. Train **BERT-based classifier** with **88% acc** and **85% recall** as fallback.
- Developed a screen content classification model using **EfficientNet-B3**, achieving **98.7% accuracy** and **91.3% recall** by curating balanced training data and tuning early stopping strategies.
- Build an AI+BI Chatgpt-style conversational platform using **Java21** and **Vue3**. Use **GPT-4o API** for **text2sql** with **Hologres**. Implement auto SQL execute and Echart generation.

Infosys Technology Co., Ltd

Shanghai, China

Database ERP Intern

Apr. 2025 – Jun. 2025

- Gained foundational knowledge of **Oracle ERP** data flow, core module functions, and key implementation processes, supporting a system deployment impacting 5+ business units.
- Successfully **data cleaning and preparation** for migration of **50,000+ records**, ensuring data accuracy for ERP to go-live.

PROJECT EXPERIENCE

Corroborated Root Certification with False-Accusation Control for AI-Generated Image Lineages

Researcher (Collaborate with Dr.Rabih Younes at Duke University)

Sep 2025 – Jan 2026

- Proposed LineageLift, a **provenance-aware framework** for **detecting AI-generated image** lineages with finite-sample root-FWER control under correct lineage grouping.
- Built a reproducible evaluation protocol spanning **50,999 RRBench images**, **8,499 real lineages**, **8,500 synthetic lineages**, and the external AncesTree benchmark.
- Achieved **4.92% root-FWER** and **64.35% lineage coverage**, compared with 20.68% descendant-wise all-member power; reduced false lineage certification under random contamination from 47.11% to 6.06%.

PhysioApp – AI-Integrated Fitness App Dev (Course Project) | Project Leader

May 2025 – Aug 2025

- Developed a full-stack fitness application using **React**, **Spring Boot**, **PostgreSQL**, and **Docker**, generating personalized workout plans tailored to users' injury conditions with **CI/CD**.
- Integrated the **DeepSeek R1 API** to implement an **AI chatbot** that provides real-time fitness guidance and injury prevention advice.
- Responsible for implementing key features such as dynamic muscle highlighting, **AI-based workout plan recommendations**, and **exercise tracking**, and **rehabilitation monitoring**.

SKILLS

Technical skills: JS, Python, Java, React, CC/codex, AI agent, SQL, C, Docker, Linux, Git.

Certification

2026 SDSS Datathon Participant: Airfare Markets Under Pressure — Analytics Dashboard