

YING LEI

(672) 551-3266 ◇ yinglei.hci@gmail.com ◇ Portfolio ◇ www.linkedin.com/in/ying-lei-hci/

EDUCATION

Simon Fraser University

Master of Science in Interactive Arts and Technology (GPA: 4.00/4.33)

Graduate Fellowship (GF) (2025 & 2026), FCAT GF (2025), Helmut and Hugo Eppich Family Scholarship (2026)

Sept. 2024 - Jul. 2026

Vancouver, Canada

East China Normal University

Bachelor of Engineering in Computer Science and Technology (Highest Honors Rank 1/117)

Shanghai Outstanding Graduates Award (2023), The Huaxin Scholarship of ECNU (2022)

Sept. 2019 - Jul. 2023

Shanghai, China

SKILLS

Product Discovery & Definition: User Needs Analysis, Stakeholder Interviews, Workflow Mapping, Requirements Gathering, Scoping

Product Validation & Delivery: Prototyping, Field Study, Usability Testing, Iterative Development, Mixed-Method Evaluation, Documentation

Programming: Python, JavaScript/TypeScript, Kotlin/Java, C/C++, SQL, Bash

LLM & Agentic AI: Retrieval-Augmented Generation (RAG), Agentic Workflows, Prompt Engineering

Machine Learning: PyTorch, scikit-learn, Deep Learning, Time-series Modeling, NLP, Computer Vision

Backend Integration: Flask, Node.js, REST APIs, Android SDK, WebSockets, HTTP, SQL, Google Cloud, MySQL, Firestore

Engineering Workspace: Linux, VS code, GPU cluster (Slurm), Git/Github, AI-assisted Development (Codex), Miro

SELECTED PROJECT

Portfolio Agentic RAG: Evidence-Grounded Recruiter Concierge

Canada 2026 | [Portfolio](#)

- Built and deployed a recruiter-facing agentic RAG system for grounded portfolio Q&A and job-fit assessment.
- Designed deterministic routing, function calling, hybrid lexical-vector retrieval, rank fusion, and grounded synthesis.
- Added bounded tool execution, graceful fallbacks, rate limits, regression tests, cost controls, and Cloud Run deployment.

WORK EXPERIENCE

Motiv Creative Labs

Software Developer (AI Systems & Backend), Contract

Victoria, BC (Remote)

Sept 2026 - Present

- Translating stakeholder requirements into backend and AI/LLM system designs, including agentic workflows.
- Collaborating across scoping, technical design, implementation planning, and delivery for client-facing AI projects.

Simon Fraser University

Research Assistant

FamilyCanvas: A Family Coordination System

Vancouver, Canada

Sept. 2024 - Jul. 2026

[Portfolio](#)

- Translated ambiguous family coordination needs into a real-time system through **9M** in-home design and **5W** field deployment.
- Designed, built, and deployed a calendar and whiteboard platform with REST APIs, persistence, and WebSocket sync.
- Owned product iteration through longitudinal usage analysis, stakeholder interviews, and feedback from deployed families.

University of Washington

Research Intern

WatchGuardian: Personalized Just-In-Time Behavior Intervention on Smartwatches

Seattle, United States

Jan. 2024 - Feb. 2025

[Portfolio](#)

- Translated user-defined behavior goals into personalized interventions requiring only **10** labeled examples per action.
- Built a three-stage wearable ML pipeline with self-supervised pretraining, fine-tuning, and few-shot personalization.
- Developed a WearOS sensing and client-server inference system for data collection, real-time action detection and intervention.
- Achieved **87.7%** accuracy / **87.3%** F1 and reduced target actions by **64.0%**, outperforming a rule-based baseline by **29.0%**.

The Hong Kong University of Science and Technology

Research Intern

AI-Assisted Decision-Making System

Hong Kong SAR, China

Apr. 2022 - Jul. 2024

[Portfolio](#)

- Designed human-in-the-loop strategies to improve appropriate reliance and decision quality under uncertainty.
- Built decision-support interfaces and translated behavioral findings from **500+** users into product requirements.

LLM-driven Multimodal Digital Human System

[Portfolio](#)

- Built a multimodal GPT system integrating persona controls, memory, STT, TTS, and lip-sync video.
- Derived responsible AI requirements from **18** interviews on identity, consent, emotional safety, and user control.

Institute for AI Education

Research Intern

Interactive Storytelling Agents for Child Safety Education

Shanghai, China

Jan. 2021 - Apr. 2022

[Portfolio](#)

- Translated child-safety education needs into a grounded QAG pipeline over **141** knowledge entries and **157** annotated samples.
- Implemented retrieval and frozen GPT-3 few-shot generation to produce QA pairs grounded in story and safety evidence.
- Evaluated the system with offline metrics and a user study (N=7) on usefulness for child-safety learning.