

YING LEI

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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

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

Software Development: HTML/CSS, Node.js, Flask, REST APIs, Android SDK, WebSockets, HTTP, Google Cloud, MySQL, Firestore

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

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

Engineering Practices: Object-Oriented Design, Unit/Integration & Regression Testing

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

- Project-based engagement focused on backend engineering and AI/LLM systems, including agentic workflows.
- Collaborating with project stakeholders on scoping, technical design, and delivery planning across AI and backend workstreams.

Simon Fraser University

Research Assistant (Web)

FamilyCanvas: A Family Coordination System

Vancouver, Canada

Sept. 2024 - Jul. 2026

[Portfolio](#)

- Built a full-stack family coordination platform with shared calendar, whiteboard, and location features across multiple devices.
- Implemented REST APIs, persistent storage, ICS calendar integration, and WebSocket-based real-time state synchronization.
- Deployed and iterated the system through a **9-month** in-home deployment and a **5-week** field study with **2** families.

University of Washington

Research Intern (Wearable / Mobile)

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

Seattle, United States

Jan. 2024 - Feb. 2025

[Portfolio](#)

- Developed a WearOS sensing and client-server inference system for data collection, real-time action detection and intervention.
- Built a three-stage wearable ML pipeline with self-supervised pretraining, fine-tuning, and few-shot personalization.
- Designed data augmentation, synthesis, weighted training, and round-level evaluation for 10-shot user customization.
- 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 (Web)

AI-Assisted Decision-Making System

Hong Kong SAR, China

Apr. 2022 - Jul. 2024

[Portfolio](#)

- Built web-based AI decision-support interfaces using model confidence and human confidence cues.
- Designed interaction strategies to improve appropriate reliance and decision quality under uncertainty.
- Evaluated trust and reliance calibration through large-scale user studies with more than **500** participants.

LLM-driven Multimodal Digital Human System

[Portfolio](#)

- Built a Flask-based multimodal system integrating GPT, persona controls, memory, STT, TTS, and lip-sync video.
- Implemented authentication, API orchestration, session management, and per-user audio/video storage.

Institute for AI Education

Research Intern (Web)

Affective Computing Models and Systems via Multimodal Physiological Signals

Shanghai, China

Jan. 2021 - Apr. 2022

[Paper](#)

- Built a dual-stream neural architecture with structural scaling, residual modules, and attention mechanisms.
- Achieved **95.18%** SEED accuracy and up to **98%** parameter reduction with a lightweight EEG model.
- Processed facial data for affective computing, including feature extraction and emotion and personality inference workflows.
- Built a web demo to visualize inferred emotion and personality traits from facial data, supporting public exhibition at WAIC.