

# CHENGGONG (EDWIN) LIU

## Applied AI and ML Engineer

Computer vision, model evaluation and AI applications | Available Dec 2026

Singapore | +65 9778 0333 | [cgliusjtu@gmail.com](mailto:cgliusjtu@gmail.com) | [LinkedIn](#) | [GitHub](#)

Graduate candidate building AI applications from data ingestion and model integration to reproducible evaluation. Combines PyTorch computer vision, robot-policy inference and source-grounded retrieval with explicit quality checks.

## SELECTED AI AND SYSTEMS PROJECTS

### PoseLoop

2026

Python / PyTorch / RGB-D perception | [Project](#)

- Integrated Mask R-CNN and FoundationPose for RGB-D/CAD evaluation, completing **820 registrations on 25 development frames**; detector F1 **0.726** and joint F1 **0.606** use a custom protocol.

### Multilingual Community Intelligence Assistant

2026

React / TypeScript / Cloudflare development runtime

- Built a React/TypeScript application with tenant-scoped ingestion, evidence-backed retrieval and human review on local Cloudflare D1/R2 emulation.
- Added same-key upload recovery, fenced job processing and signed Access JWT verification, with local D1 concurrency and HTTP checks; remote AI/resource acceptance remains pending.

### ActionStream

2026

Python / LeRobot / asynchronous inference | [Source \(private\)](#)

- Built a LeRobot-compatible asynchronous policy runtime with episode-owned queues, cancellable process transport and revision-tagged action delivery; repaired **11 reproduced lifecycle failures** and added native X-VLA/LIBERO development tooling.

## RELEVANT EXPERIENCE

### Paradox Interactive

Oct 2025-Present

Community Data Analyst, China Market | Freelance, remote

- Build Python/API and LLM workflows for feedback classification, topic analysis and source-backed stakeholder reports, with retries, structured outputs and human approval.

## TECHNICAL SKILLS

**ML and data:** Python, PyTorch, SQL, Mask R-CNN, FoundationPose, ablation studies, evaluation protocols

**Systems:** APIs, LLM workflows, React/TypeScript, Cloudflare Workers, D1/R2 emulation, HLSL, Git

## EDUCATION

### National University of Singapore

Expected Dec 2026

M.Sc. Biomedical Engineering

### Shanghai Jiao Tong University

Sep 2020-Jun 2024

B.Sc. Bioinformatics; Minor in Applied Psychology

**Languages:** Mandarin (native); English (professional; IELTS 7.5)